THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXIII.—No. 4166. DECEMBER 8, 1922.

THE HOUSING SHORTAGE.

A CAREFUL examination of the housing position as it stands at the moment suggests the following questions :—

1. Whether we can wait until building costs and rentals reach an economic level, meantime retaining the Rent Restriction Act.

2. Whether the vicious circle should be broken by accelerating the decontrol of rents and returning to free conditions.

3. Whether in the present state of bad trade and unemployment the nation can afford further taxation to finance another housing programme.

4. Whether a partial form of decontrol for houses (say above £40 annual rent) would help to ease the situation.

5. Whether relief from local rates for a period would encourage private enterprise to build.

We at once make a distinction between the hardships which are avoided—by not increasing the rents—and the hardships which proceed from a shortage in houses. One is controlled by the Rent Act; the other, as things are, can only be met by putting further burdens on the taxpayer. Remembering that we should be dealing with two extremes—higher rentals, and distress through unemployment—it cannot be considered a wise policy to press for the entire removal of the Rent Restriction Act, and this brings the problem to the point where we have to decide how long we can wait for additional houses. If the Rent Act is extended, the shortage of houses will become greater; on the other hand, it seems impossible to visualise an outlook which would condemn us to a permanent economic condition in which we should never have sufficient means to be able to pay an adequate house rent without help from the Government. If such a state can be imagined, it surely becomes Gilbertian when we tax ourselves to help to pay our rents.

We think it matters little whether we stabilise now or later; wages and house rents must reach a pro-rata basis, otherwise in a free market all the workmen will want to be in the building trade. It is merely a question of how long the anomaly can last, and the experience of the last year or two should have some importance to those who are wondering whether wages are likely to go up to meet the house rents, or whether the process will be reversed. We may not have solved the housing problem when we are able to decide this point in economics, but at least we are able to ascertain exactly in which direction we are heading. The economist, in all probability, would tell us to postpone our building programme if we are thinking of another State-aided scheme, or to exercise caution in our commitments; while the statesman would tell us that we have to rely upon judgment and wisdom to dictate a policy which has for its object the subduing of discontent and unrest.

We have dealt with the suggestion that it seems to be a matter of policy to consider the discontent which exists amongst those who feel they are carrying their own and their neighbours' burdens, and we cannot ignore the unanimous complaint from the captains of industry that the already heavy taxation is having a crushing effect on trade. If it has really become a question of fighting against expenditure we can see that the housing shortage is reduced to a nice problem in which the political aspect is a dominant factor.

It is possible that the question of partial decontrol embracing houses of a rental above £40 per annum might be worth further investigation. The idea is based on the simple fact that many people were allowed by the Act to live in other people's houses at a nominal rental instead of being compelled to take the ordinary hazards of life and either build houses or pay increased rent if they had the means. They have seen a considerable fall in building costs, and the penalty of building now is certainly no harder than was meted out to landlords or purchasers who bought their houses at high prices and have not been able to get possession. Again, we have to recognise that many of these tenants have not the means which they had a few years ago, but the hardship would only be temporary if the higher rentals induced private enterprise to build houses. It might fairly be argued that this type of house is not likely to help the shortage in workmen's dwellings, but the lower middle class are in a similar difficulty, and the more houses that are built the less becomes the crowding in "rooms." The movement would be continuous, with the adjustments gradually working downwards in the social scale. We admit that the suggestion requires much consideration, but at least it seems a step in the right direction when those who could build should be compelled to build or pay economic rentals which will encourage building, instead of continuing to place their burdens upon the taxpayer. If we begin a partial decontrol with the higher-rented houses, we help the unemployment in the building trade, we avoid the rush of building which will result when complete decontrol takes place, we adjust a burden which hitherto has been unfairly carried by the taxpayer, and in the meantime we shall be drawing nearer gradually to an economic level between building costs and rentals.

We admit that the whole idea is quite tentative and that it is probably more a matter of policy than a serious contribution to the housing solution. Figures have just been published which show that out of the total of all houses, 80 per cent. represents those under an annual rental of £20, so that it is obvious that the percentage of houses above £40 rental can only be a very small proportion of the housing shortage.

Our conclusions are that the Rent Restriction Act should not be cancelled if it will increase existing hardships; that we should, if possible, try to avoid another subsidised housing programme; and that it should be ascertained if the partial decontrol of higher rented houses would help matters. We think that the most important factor in the housing shortage lies in the problem of unemployment. The capacity of the State to carry non-producers has a distinct relation to the earnings from industry; hence it is that, in a depressed condition of trade, heavy taxation becomes a burden. At the height of the recent trade boom, trade was good, despite the high income tax and Excess Profit-tax.

We confess we are unable to understand the attitude of several of our daily newspapers, which are convinced that industry must be relieved of some of the taxation, and yet write about the shortage of houses as if something were being withheld from the citizens which they could get for nothing.

There is no doubt that local rates have a serious effect on house building, but we are not convinced that the idea of giving temporary relief would be any remedy. It is merely another method of avoiding the burden by placing it on to other shoulders. There is a definite stage at which we arrive when we either continue to grant large measures of social reform as a nation, or we abandon the idea that we can obtain something apparently for nothing and begin to take an intelligent interest in the income of the nation, in work, in the costs of production, and in the relationship of wealth to work. There are many who see no difference between the granting of subsidies for housing and the spending of money on unproductive schemes for the alleviation of privation due to unemployment, or the payment of doles for doing nothing. From an economic point of view this is true, but on the other hand we must not forget that, so long as the Rent Act controls the supply, we must pay the penalty.

If any of our readers consider our views to be too reactionary, we would say that we are wholly in sympathy with the ideal of better housing, and it is because the ideal is so worthy and far-reaching in its effects that we feel there is more danger in the easy way, in the short view, and in the limited and vicious circle, than in frankly recognising the true and permanent basis of national prosperity. A decision upon the housing shortage cannot be given lightly when certain facts are clear and certain aspects are obscure, when, in short, it becomes a question of balancing political economy against a political aspect which cannot be ignored.

NOTES.

Mr. Herbert Baker, A.R.A.

IT is not always easy to attempt a full catalogue of the reasons for the special distinction of election to the Royal Academy, and we think in the case of painters all those qualities of technique which win the approbation of his fellow artists place a painter in a secured position such as the public cannot fully understand. In the case of an architect his buildings are the advertisement of his capabilities, and have a permanence and a continuity of exhibition which cannot be obtained by the painter. The election to Associateship of the Academy of Mr. Herbert Baker will come as no surprise to architects who have followed his practice for a good number of years, and who have had ample opportunities to judge of his work in a variety of expressions. But to the general public his public work in South Africa and India is widely known, as well as his recent appointment for the Bank of England extensions, and there can be little doubt that his election will be a popular one. Architects have appreciated the force and breadth which his designs convey, and will probably feel that in this sense he has shown something that has been more generally found in American practice and which has been too much lacking in the work of English architects. The following illustrations of Mr. Baker's work are now on view at the R.I.B.A. exhibition of contemporary architecture: Pretoria Cathedral; South African Medical Institute; Union Buildings, Pretoria; Villa Arcadia; W. G. Grace Memorial, Lords; and Sir Philip Sassoon's House at Lympne.

New Thames Bridge.

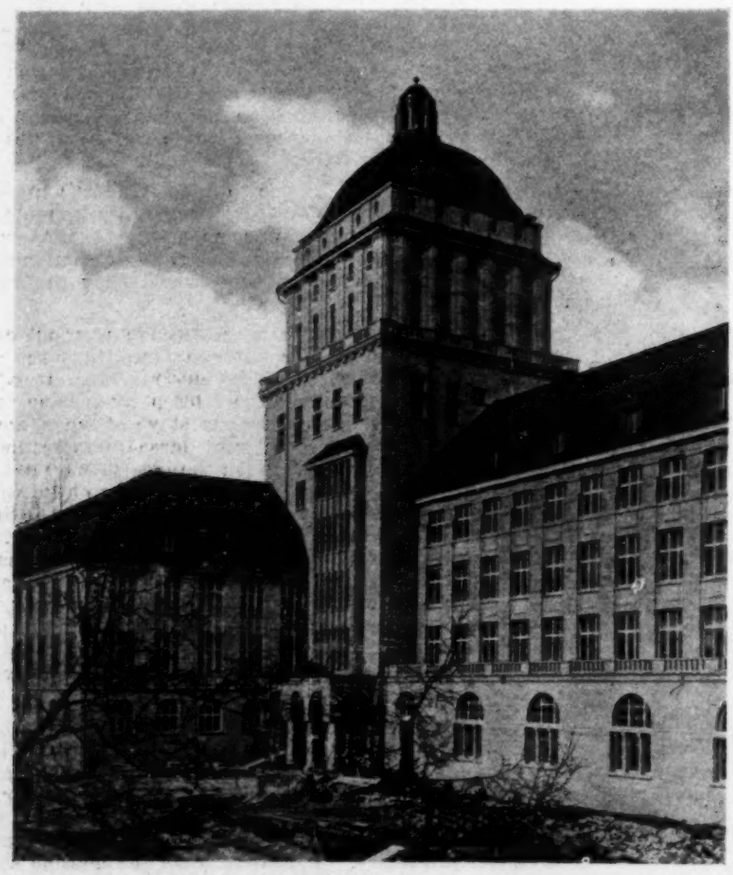
THE question of where a new bridge across the Thames is most needed can hardly be determined by the general public unacquainted with the particulars of traffic problems, and the subject must be considered from the point of view of those who are. The consideration of where the new bridge should be placed must be partly determined by the evidence in regard to traffic necessities, and if it can be shown that the three vehicular bridges on the immediate east of Blackfriars are not sufficient for the traffic, which still remains more congested than that farther west, something like a case may have been made out for the St. Paul's site. But is this so? We are told that Southwark Bridge is very little used; could not some reconstruction of the approaches further its more extended use in order to meet the demand for increased traffic facilities? In such a case the need for a bridge at St. Paul's is not made out. What remains clear is that action should not be taken in a hurry, and it would very much assist matters if plans were available for the public showing the approaches, alterations, intersections, and viaducts and their connections with existing thoroughfares, so that information should be available on which to form a sound judgment. The sketch we publish on p. 866 shows the relative distance between the existing bridges, but the decision to delay procedure with the new bridge which the Corporation arrived at last week seemed to turn on the question of approach roads only. Professor Pite's admirable letter to *The Times* the other day should surely prove convincing to those who have an open mind on the subject.

The Recent Discoveries at Thebes.

THE recent remarkable find of treasures in a king's tomb at Thebes suggests some curious reflections on our world of contradictions. The simple dignity and gravity of the architectural effect as you enter these tombs symbolises something of the majesty of kingship, which to our minds appears curiously inconsistent with the idea that all this panoply of state and comfortable paraphernalia have been provided to help the kingly personage in a future which has never come. Now we are making it for ever impossible for His Majesty to enjoy these things, and in the dismantlement now going on we are hoping some valuable relics may find their way to an English museum. The *cache* just opened appears to have been provided for King Tutankhamon, who was responsible, says Dr. Gardiner, for the wonderful sculptures of the festival of Opet in the Temple of Luxor.

Parliament and Housing

THE housing problem has already been discussed in Parliament, where some future possibilities as to Government assistance were indicated by the Solicitor-General. The tone of the speeches was satisfactory in so far as it indicated that the urgency of the question was recognised by speakers of all parties, more especially the vital importance of proceeding with the clearance of slums. Housing finds a sincere champion in Lady Astor, whose appeal to those on the Labour benches to use their heads as well as their hearts, and to those on the Government side to use their hearts as well as their heads, was not only happily expressed but contained a profound truth. The easy confidence of the member for Hastings that "a comparatively small sum would be sufficient (for slum clearance) if properly distributed and allocated by the Minister of Health," is soothing and no doubt acceptable to those who are unacquainted with slums.



Entrance from Kunstlergasse: University of Zurich.

PROFESSOR K. MOSER, Architect.

Zurich University: View from the Great Minster.

Party Ties.

EVEN though the necessity for action may be recognised on all sides of the House, it is to be feared that in practice party ties will be adhered to. We know almost instinctively that the Labour Member will say that private enterprise is not competent to house the people and that its failure is to be seen in every direction, while we can be equally sure that the average Conservative will state as a fact that private enterprise is the only agency that can do it adequately. Since Labour Members more often live in working-class houses than do Conservatives, the former might well claim that their opinion is the more valuable. But, if we want to get at the truth, catchwords and "table d'hôte" opinions are of no value. The matter must be thrashed out with impartiality and without preconceived opinions.

Whitgift Hospital.

THE fact that the town councillors of Croydon have decided to seek Parliamentary sanction for the removal of this hospital in order that the thoroughfare may be widened, brings something much more than local importance to the intention. This Elizabethan Hospital is, as stated in an article in a contemporary, "much more worth saving than many ruins which are scheduled as ancient monuments, if only that it stands in the middle of commonplace surroundings and puts to shame by its mere presence the gaudy products of modern commercialism." This is well said, and reminds us of the national importance of preserving monuments which set the example of a nobler outlook. Men do not live by bread alone, nor is the only consideration the promotion of utilitarian aims. When town councillors regard the preservation of such a building as depending on merely "sentimental" considerations they place themselves in antagonism with the better feelings of the time—and show themselves ignorant of the true values that lie in the preservation of such a relic. History, beauty, and the associations connected with a building of such a character are part of a patrimony which should be of real and almost sacred value to us.

Notable Prices.

THE not infrequent attitude of the public towards architects is well illustrated in *Punch's* little tale of a man who came to an architect saying: "Look here, I've got a thousand pounds I am willing to spend on a home," and the architect at once replying: "Oh, that sized home would cost at least £1,500." The architect also might be asked to build some of the three-hundred-and-ten-pound cottages illustrated in *The Builder* last week (and even less in some districts), and could at least make out a reasonable case for adding about one-third to this amount, for that appears to work out at less than 9d. a cube foot.

The A.A. Conversazione.

THE annual conversazione of the Architectural Association, which took place on December 5 last, proved that under the presidency of Mr. Stanley Hamp the A.A. continues to exercise its special and peculiar function as an institution where architects of all ages and both sexes meet in friendly intercourse. On this occasion, at least, professional jealousy or the sometimes excessive rivalry of architectural institutions is decently interred and architects and their friends meet on common ground. The rival attractions of the exhibition of drawings by the late Cecil Brewer, full of an elusive and delicate charm, the section devoted to sketches and photographs made by members on this year's A.A. excursion to Holland, and a more prosaic but interesting collection of ironmongery, all claimed attention, while the later hours were devoted to a dance arranged by the Lyric Club. Such functions do much to promote the cause of architecture, and are a useful antidote to the more normal meetings of our architectural institutions.

View from the North: University of Zurich.

PROFESSOR K. MOSER, Architect.

GENERAL NEWS.

Professional Announcement.

Mr. Clough Williams-Ellis has been appointed architect to the Stowe School Governing Body.

Obituary.

The death took place, from heart failure, on December 2, of Mr. C. F. Armstrong, of Brisco Hill, near Carlisle. The deceased gentleman, who was in his 72nd year, was formerly a prominent Newcastle architect. He leaves a widow and family.

Northampton Polytechnic Institute.

The annual prize distribution in connection with the Northampton Polytechnic Institute took place on Friday evening last week. Mr. L. B. Sebastian, Chairman of the Governing Body, presided, and the awards were presented by Dr. S. Z. de Ferranti. The annual conversazione was held the following evening.

Birmingham Civic Arts Carnival Committee.

Under the auspices of this Committee a costume ball will be held at the Grand Hotel (Grosvenor Suite), on Thursday, December 14. The Committee of Management will be representative of the following Societies: Birmingham Architectural Association, Municipal Central School of Art, Royal Birmingham Society of Artists, Institution of Civil Engineers: Birmingham Association, Civic Society, Repertory Theatre, and the Midland Arts Club. Tickets may now be obtained from the Secretaries of the above Societies at 10s. 6d. each, with a specially reduced price of 6s. to students and juniors.

Roman Villa near Bristol.

Four weeks' excavation work on the Roman villa in the cemetery at Keynsham, near Bristol, has disclosed the foundations of a corridor 200 ft. in length. Lying along the north side of this passage was a series of living rooms, one of which is covered by the present cemetery chapel. The lower or eastern half of the corridor is paved with square stone slabs, the upper or western portion with tesseræ, the chief features of the tessellated pavements being panels of the guilloche pattern in red, white and blue. The honorary secretaries of the Excavation Committee, in their report, say that, although in past years a large part of the villa has been destroyed in digging graves, the excavations have shown that there is a considerable portion of it still remaining. While it is not yet possible to say what was the plan of the villa, or the extent of the ground it covered, it was undoubtedly of large size.

Exhibition of London Art Students' Work.

In connection with the Hospitals of London Combined Appeal, an exhibition of work by London art students will be held at Devonshire House, at 3 p.m., on Monday, December 11.

Whitgift Hospital.

The Croydon Borough Council have decided to present a Bill in Parliament for the removal of Whitgift Hospital, the Elizabethan structure in the centre of the town. The site is required for road-widening purposes.

L.C.C. and Grosvenor Estate.

The following recommendation was made by the Improvement Committee of the London County Council on Tuesday:—

"That the estimate of expenditure on capital account of £160,000, submitted by the Finance Committee in respect of the extension southward of the Westminster Embankment wall and gardens, the widening of and the alteration of levels in Grosvenor-road and Horseferry-road, be approved. . . . That the extension of the Westminster Embankment wall and the widening of Grosvenor-road and Horseferry-road be undertaken."

Mr. E. L. Meinertzhagen (Chairman of the Improvements Committee) said he did not propose to submit the recommendation. Mr. W. C. Johnson protested that the Chairman should give reasons for not submitting what were obviously important recommendations, and pressed for a fuller statement. This the Chairman of the Committee refused to give, whereupon Mr. Johnson moved the adjournment of the Council, but the motion was defeated on a division by 76 to 37.

COMPETITION NEWS.

Proposed Hospital, Castleford.

FOR CASTLEFORD HOSPITAL COMMITTEE.—Designs for a proposed hospital. (See our issue for Dec. 1.)

Dewsbury War Memorial.

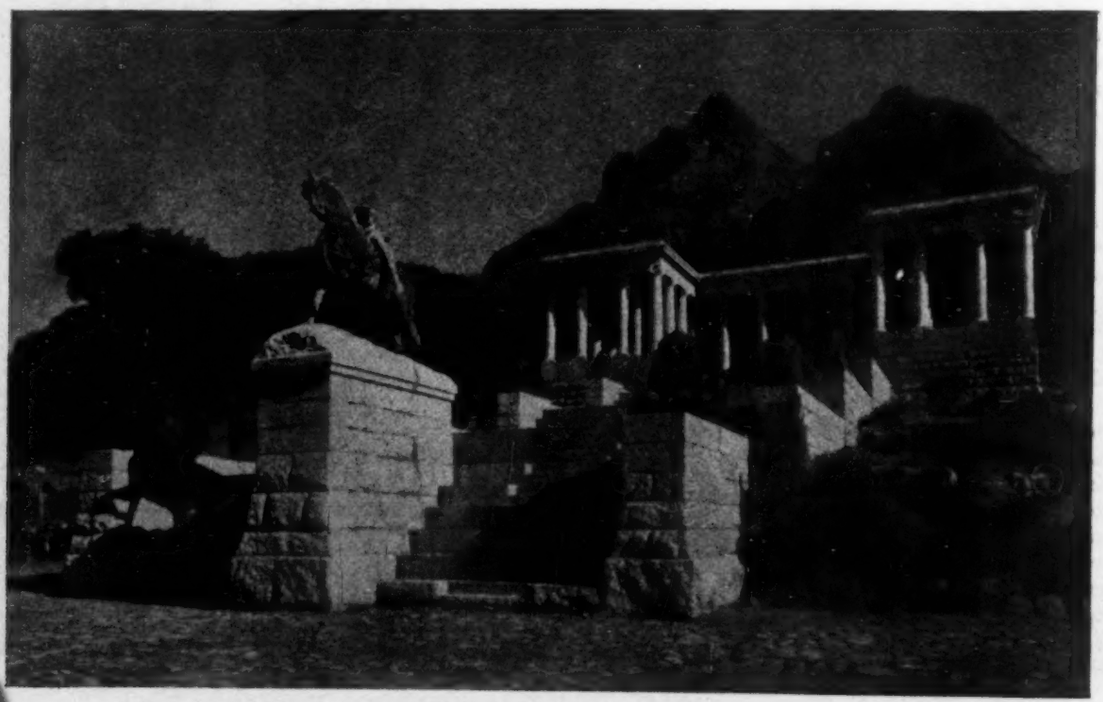
FOR DEWSBURY WAR MEMORIAL COMMITTEE.—Designs for a war memorial in Crow Nest Park, Dewsbury. Sending-in day, March 31, 1923. (See our issue for Dec. 1.)

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given): Birkenhead War Memorial (Dec. 29, Sept. 15); Port Said War Memorial (March 31, 1923, Sept. 29); Old Cranleighan Cricket Pavilion (Dec. 20, Oct. 6); Douglas lay-out—banned by R.I.B.A. and Society of Architects (Nov. 17); American Hospital (Feb. 1, 1923, Nov. 24).

The Halls of the City Companies.

In view of the announcement of a students' competition in connection with the City Companies, the following dates of our issues containing illustrated articles on the City Companies and their Halls may be of interest:—Mercers', March 31, 1916; Grocers', April 28, 1916; Drapers', May 12, 1916; Goldsmiths', June 9, 1916; Skinners', July 14, 1916; Merchant Taylors', August 4, 1916; Haberdashers', September 1, 1916; Salters', October 6, 1916; Ironmongers', October 27, 1916; Vintners', December 8, 1916; Clothworkers', December 22, 1916; Barbers', January 26, 1917; Dyers', February 16, 1917; Brewers', February 23, 1917; Leathersellers', March 30, 1917; Pewterers', April 20, 1917; Cutlers', June 1, 1917; Bakers', June 15, 1917; Wax Chandlers', June 29, 1917; Tallow Chandlers', August 10, 1917; Butchers', September 7, 1917; Armourers', September 21, 1917; Girdlers', October 12, 1917; Sadlers', November 9, 1917; Apothecaries', December 7, 1917; Painters' and Stainers', January 11, 1918; Curriers', February 15, 1918; Innholders', March 29, 1918; Coachmakers', August 16, 1918; Founders', November 15, 1918; Stationers', December 13, 1918; Coopers', August 8, 1919; Cordwainers', November 14, 1919; Carpenters', Jan. 23, 1920; Fishmongers', Dec. 10, 1920; Gunmakers', Oct. 8, 1920.



The Rhodes Memorial, Table Mountain, South Africa.
MR. HERBERT BAKER, A.R.A., F.R.I.B.A., Architect.

CONTEMPORARY BRITISH ARCHITECTURE.

"*Architecture has its political use, public buildings being the ornament of a country. It establishes a nation, draws people and commerce, makes the people love their native country; which passion is the original in all great actions of a commonwealth.*" (SIR CHRISTOPHER WREN.)

THESE words, which are quoted by Mr. Paul Waterhouse in the admirable preface which he contributes to the catalogue of the works of contemporary British architects (now on view at the Conduit-street Galleries), are singularly apposite, though the converse may be equally true—that a commonwealth which has so far declined as to be incapable of "great actions," will not produce fine architecture.

If this be so, the exhibition may justly be taken as an index that the British Commonwealth is progressing towards higher aims and larger views, for the thing which impresses us in this collection of fine photographs and drawings of contemporary architecture is the growing realisation that mass, scale and proportion are the essentials in composition, and that an "order" or a "style" is only the servant of the architect and not his master. We could wish that more plans (even to a small scale) had been included, to bring home to the public the fact that a good plan is always the basic fact in the design of a fine architectural composition.

The selection and hanging committee have done their work well; the postponement in the date of the exhibition and the subsequent decision of the committee that photographs of actual buildings should be invited in preference to perspective and water-colour drawings show that they had a task of unusual difficulty.

The success of the exhibition is, in great measure, due to the careful selection and hanging of the exhibits.

In the large gallery the centre of each wall is occupied respectively by photographs of the work of Sir Edwin Lutyens, R.A., and Mr. Herbert Baker, A.R.A., and on each side of these two central exhibits are those of Messrs. Stanley Hamp, Clough Williams-Ellis, Curtis Green, Paul Waterhouse—two attractive water-colour perspectives by Mr. Bucknell—Sir John J. Burnet & Partners, Oswald P. Milne and Paul Phipps, Romaine Walker and Jenkins, E. Guy Dawber, Ernest Newton & Sons, and Robert Atkinson. On the two end walls of this gallery are hung photographs of Westminster Cathedral by the late J. F. Bentley, and Liverpool Cathedral by Mr. G. G. Scott, R.A.

The centre position of the second gallery is filled by some excellent photographs (by Mr. F. R. Yerbury) of the London County Hall by Messrs. Ralph Knott and E. Stone Collins, with W. E. Riley, consulting architect; flanked on each side by photographs of the work of Messrs. Mewès & Davis, and A. Marshall Mackenzie & Sons. Opposite hangs a series of excellent views of the Port of London Authority new building by Mr. T. Edwin Cooper.

At each end of the room hang views of buildings by Messrs. H. V. Lanchester and the late A. E. Rickards, and Messrs. Smith & Brewer.

In the smaller galleries we noticed illustrations of the work of Messrs. Blow & Billerey, C. H. Reilly, W. & E. Hunt, Louis de Soissons—one of the few of the younger generation represented in the exhibition—Septimus Warwick, etc.

The work of provincial architects does not figure very largely, though we noticed some fine photographs of work by Sir Robert Lorimer, A.R.A., R.S.A., Messrs. Thomas Worthington & Sons, Walter H. Brierley, Briggs & Thornely, H. T. Buckland and William Haywood.

It is to be regretted that some well-known architects are not represented, such, for instance, as Sir Aston Webb, P.R.A., & Sons, Sir Reginald Blomfield, R.A., Mr. J. W. Simpson, and others, but it is to be hoped that the success of this new departure will lead to the further exhibitions of the same kind, which, we think, would do much to promote public interest in the architecture of our time.

The principle of illustrating architecture by means of photographs rather than by drawings is, one which appeals strongly to the general public, and is sound because it shows the composition in its three dimensions. It will be remembered that the success of the exhibition of American architecture last year was largely due to this fact, and we think that the present exhibition (with a few additions) would prove extremely interesting to our American cousins. The comparison of these photographs with views of their own buildings would demonstrate both the qualities and the defects which characterise contemporary British architecture.

Mr. Paul Waterhouse (President of the Royal Institute of British Architects) opened the exhibition on Friday last; it is to remain open (free) until December 22—daily from 10 a.m. to 5 p.m.; Saturdays, 10 a.m. to 1 p.m.

In declaring the exhibition open, Mr. Waterhouse said the exhibition, comprehensive and excellent as it was, by no means represented the whole of the work of contemporary architects, which attained a high level of achievement. In referring to the increasing recognition by the public of the value of good architecture, he said the true function of the architect was not to lead his client into additional expense but to see that the money allocated to a building was properly spent.

Among those present at the private view were:—Lord and Lady Aberconway, Lord and Lady Carmichael, the Earl of Crawford and Balcarres, Lord Hemphill, General Lord Horne, Lord and Lady Morris, Lord Muir Mackenzie, Lord and Lady Eustace Percy, Lord Shandon, Lord and Lady Strathspey, Lord and Lady Stuart, Sir Herbert Austin, Sir John Burnet, R.A., and Lady Burnet, Sir Edward and Lady Busk, Sir Anthony A. Bowlby, Sir Charles and Lady Ruthen, Sir Alfred Temple, Sir Charles and Lady Walston. Commander Carlyon Bellairs, M.P., and Mrs. Bellairs, Dr. W. A. Chapple, M.P., and Mrs. Chapple, Major F. H. Fawkes, M.P., Mr. H. D. Lorimer, M.P., and Mrs. Lorimer, Mr. Maxwell Thornton, M.P., Major R. D. T. Yerburgh, M.P., Mr. H. Hughes-Stanton, A.R.A., and Mrs. Hughes-Stanton, Mr. and Mrs. Baillie Scott, Canon Alexander, Mr. and Mrs. Greville Montgomery, Mr. and Mrs. H. V. Lanchester, the Rev. Dr. and Mrs. Haynes, Mr. G. Rowland Hill, Mr. J. Allen Howe, Mr. Roland B. Chessum, the Masters of several City Companies, Mr. Charles L. Hartwell, A.R.A., and Mrs. Hartwell, the Headmaster of Bradfield College, Lord St. John of Bletso, Sir Charles Hobhouse, M. W. Reynolds Stevens, Mr. Gilbert Bayes, the Mayors of Paddington, Lambeth, Kensington, Marylebone, Hampstead, Holborn, Woolwich, Poplar, Deptford, Westminster.

"Littlemead," Holtye, Sussex. MR. H. M. FLETCHER, F.R.I.B.A., Architect.
Shown at the R.I.B.A. Exhibition of Contemporary Architecture.

CORRESPONDENCE.

The A.A. President's Address.

SIR,—I accept Mr. Hamp's interpretation of his speech, but when Mr. Hamp said "Architects should *demand* to be consulted upon all branches of industry where artistic advice was needed," together with all his other suggestions that architects should do work that now finds employment for other people, it is evident that architects will be pushing others out of employment to get in themselves. I think architects need be careful, for did not Professor Moira say (good humouredly, no doubt) that architects had been in the "niche" long enough and ought to come out to make room for others?

A glance back will teach us that many of the greatest architects began life as painters, sculptors, goldsmiths, &c.; our own Sir Christopher Wren was a successful astronomer, to start with, and these men hold us lastingly indebted to them. What if history repeated itself in this regard? Would there not be a great outcry at the A.A., &c., &c.?

But I hear someone shouting "Registration." Delightful! And so simple!! The door at one end wide open for architects to walk into other workshops, but closed at the other end so that no one should enter the architects' "niche" or domain! Is this a high ideal?

If my memory serves me, few of our eminent architects did work outside the ordinary routine of architecture, though the brothers Adam, Kent and others did, no doubt, owing to their success in architecture proper. This only serves to support my contention that our architecture itself must make a stronger appeal to the public mind, then other work will follow. I know of an architect who did all the furniture for one of his buildings right up to choosing the individual threads used in the carpets.

And here, Sir, may I ask, Has Mr. Robertson not heard of the names of Soane, Smirke, Elmes, Basevi, Hardwicke, Cockerill, Barry, the two Gilbert Scotts, Street, Nesfield, Burges, Bodley, Pearson, Bentley? All these great architects were covering England with beautiful buildings during the last century.

If Mr. Robertson dared speak of England in the way he does during the work of these architectural giants, I surely may speak as I have done of the ideals of those who are not architectural giants yet. But I need not add more except to draw attention to Mr. Robertson's statement: "The fact that those who attended a certain A.A. dinner are not gentlemen." He states the fact and then accuses me of "parading" it: but let this pass.

As to cottage work, may I mention that Mr. T. Alwyn Lloyd has written to a contemporary of yours, Sir, corroborating my statement that £15 or less per cottage is about the remuneration paid to architects?

Now, I suggest that if any concerted action is deemed necessary in dealing with this cottages question the right people to take such action are the architects who have already been giving the best of their energies and brains to the work, and who *have* produced plans that have proved to be quite suitable and quite economical. The idea that architects, who evidently from the statements they make and the questions they ask have not given attention to this work, should take upon themselves this work seems to me perfectly anomalous.

There is no mystery, Sir, in my statement that I get less than £6 per cottage. The terms arranged by the R.I.B.A. for me, and others, with the Ministry of Health, provide me with 1½ per cent. on the cost of £400 or less, and hence is £6 or less. One would have thought Mr. Hamp would have known all about this. The change in amount of fees per cottage has all come about because the architects themselves engaged in cottage work have worked very hard to make their plans the very essence of economy—and, put another way, the harder we have worked the less are we paid; but we do not grouse about this as we know we have served our country in its hour of need. That is largely our reward, and, I venture to say, a worthy ideal.

"COUNTRY MEMBER."

"The Architect as Schoolmaster."

SIR,—After a close connection for ten years with architectural education in London, may I offer a few criticisms of the article entitled "The Architect as Schoolmaster" which appeared in your issue for December 1?

If I disentangle the main point of the article aright, it is that the author, "A Plain Man," has decided that, taken all in all, students receive a better introduction to architecture in the schools than under the older system of pupilage. This is a decision which has been so long generally accepted, after a careful and prolonged investigation of the merits and demerits of the respective methods, that its restatement to-day would seem unnecessary. But, whilst admitting the general superiority of the schools, "A Plain Man" remains unsatisfied with their achievement. Here again he is pointing a moral already patent, as no critic is more conscious of their shortcomings or more eager for advancement than the schools themselves. So far, then, the author and I are agreed.

The remainder of the article shows so surprising an ignorance of the work and organisation of the schools that it scarcely merits serious consideration. Lest, however, the fallacies it contains should prove misleading to such as have had little or no opportunity of acquainting themselves with the facts, I will answer here the outstanding points.

"A Plain Man" fears that the granting of exemption from sitting for its final examination by the R.I.B.A. to the students in "recognised" schools who have attained a level of capability marked by a diploma or degree, will not maintain the standard required by the R.I.B.A.'s own final examination. It is difficult to see how this could be the case. The educational work of the R.I.B.A. is in the hands of its Board of Architectural Education. If this body may be trusted to conduct its own examinations, it may be trusted to appoint external examiners capable of maintaining its own standard. The working students in schools whose diploma or degrees carry exemption from the greater part of the R.I.B.A. final examination passes under the scrutiny of two such external examiners, who examine not only "a wealth of fine drawing," but also the students' knowledge of building materials, steel and ferro-concrete construction, and the other necessities of the architect's equipment. Even with this safeguard of a duality of examiners, exemption—and that not including the examination in professional practice—from the R.I.B.A.'s final examination is granted only after six months, or in some cases a year, has been spent by the student as an assistant in the office of a practising architect.

The annual exhibition of the greater part of the drawings of each student entering the Institute in this way—though drawings in themselves are not a complete indication of a student's attainment—provide a greater guarantee of the good faith of the examiners—if such a guarantee is required—than is afforded by the Institute's own examination.

Another fear of "A Plain Man" is that the schools will inspire their students with lofty "ideals of a nature not too strictly defined" at the expense of rendering them less capable than the students of an earlier day of earning their own living.

Let it be said at once that it is the aim of the schools to give their students a broader view of architecture than would be afforded by a purely technical training, without one whit abating, but rather increasing, the technical knowledge necessary for practical achievement. Is it to be supposed, then, that a man is less capable of earning his "bread and butter" because he acquired something of good taste in his student days?

I come now to "A Plain Man's" badinage of the vocabulary of the schools. In 1910 or thereabouts English architectural education received a fresh impetus. Architectural educators (practising architects all) took what was best not only from our own tradition, but from French, German, Italian and American methods of training, and in finding much that could be profitably adapted to English use in the French Ecole des Beaux-Arts, it was not unnatural that some borrowed words and phrases should adhere to the ideas. But whilst English architectural education has profited by the infusion of fresh methods, the "esquisse-esquisse," the "hors de competition," and the rest of the Parisian jargon, where adopted, is dying the death which might be normally expected of it.

To take an example: In the London University School of Architecture (the third in England in point of size) there is not a foreign word in use, officially or unofficially—save one. That word is "atelier." It needs no apology for its retention. We have adopted it, as we have adopted "bully" beef for instance—because we have no word which expresses exactly the same meaning. "Atelier" is not another name for an evening school. An atelier is not an evening school. I need not enter here into the full constitution of an atelier. There are two ateliers in London—the "First" Atelier and the London University Atelier. The former is affiliated to the French Ecole des Beaux-Arts, and cannot, for that reason, be included in a discussion of English methods of training. The latter—recognised by the R.I.B.A. as forming part of the fifth year course of the London University School of Architecture—is open to all students, working in architects' offices, who wish to develop their capacity for design. It has no *sous-patron*. The instruction is in the hands of a director and a master.

I think I have said enough to convince—if not perhaps "A Plain Man" himself—at least the readers of his article, that the schools are training men who will be architects, men who will be capable of earning their own living from the time they leave the schools, and that they are doing this without the affectation of a foreign tongue or the denial of their own.

JAMES BURFORD.

The Outlook for the Architect.

SIR,—In order to improve the outlook of the architect in this country it would be necessary to blow up by bomb or other means our learned societies with their obsolete codes of ethics, rip up all Acts of Parliament relating to ancient lights, abolish party wall agreements, and for our profession generally to cease to act as a society for the preservation of ancient monuments.

It would then be possible for an architect to look out for a good piece of property, work out a revenue-bearing scheme for its development, and present the same to the owner for consideration. What crime there would be in such a procedure is hard to see.

If every landowner were told that he must provide light for his own premises on his own property, and that he had no right to steal it from his next door neighbour; also that he should build his own building on his own property, and that his next door neighbour must look after his own walls adjoining, there would be a lot of preposterous fees saved to the client and long drawn out negotiations avoided. Why an owner should not be able to go ahead and build what he likes on his own property without spending months arguing with his neighbour is not clear; at least, to one who has worked many years under the simpler conditions prevailing in America.

Next, it would be necessary for more than half the architects to go out of independent practice and get a job with a firm large enough to supply the necessary organisation efficiently to carry through building operations. The fact that more than half our practising architects

get a job this year and the next a few years hence accounts for very much of the mediocre work produced to-day.

I have heard hard words spoken of the "plan factories" in America, but surely a firm big enough to keep men designing constantly and doing nothing else is more likely to turn out real architecture than the little one-man business where the architect designs, constructs, keeps accounts, &c.

Ninety per cent. of the business in London to-day is done in premises hopelessly out of date—old houses converted into offices, &c.—and the public badly need educating up to the point where they will demand better accommodation. Why hang on to an old, dilapidated house because it happened to be built in the eighteenth century? The date doesn't necessarily imply good design, and much of the old work we rave over if repeated to-day we would rave at.

This country could afford to let America have (at a good price) as many of our ancient monuments as she had a mind to take and still have enough left over to keep our antiquarians amused for years to come, and in exchange fill up the gaps with a few modern buildings, which would make the public ask for more.

Lastly, may I give this hint by way of advice to the suffering members of the A. & S. A. P. U., mentioned in Mr. McLachlan's letter? I went to Canada very poorly equipped architecturally speaking, and during the fifteen years I spent in that country and the States I never had a day's enforced idleness, neither was there ever a day when I could not have thrown up my job, and, with a few drawings under my arm, found another at the office round the corner. Lack of work and uncertainty of constant employment sap a man's courage, rob him of the chance to gain experience, make him of little use to his employer, and leave him without backbone or ability. It may be hard to leave one's homeland, but one can always come back.

ALFRED B. SCARLETT, M.S.A.

London.

The Henry Saxon Snell Prize.

SIR,—I notice the Council of the Royal Sanitary Institute have just published their award for the Henry Saxon Snell prize for the year 1922. The prize was founded to encourage improvements in the construction or adaptation of sanitary appliances, and is to be awarded by the Council of the Royal Sanitary Institute at intervals of three years, the funds being provided by the legacy left by the late Henry Saxon Snell (Fellow of the Institute).

The prize in the year 1922 was to consist of 50 guineas, and the medal of the Institute, and was offered for an essay on "Improvements in the Sanitary Appliances and Fittings for new Housing Schemes, having regard to Efficiency and Economy." The conditions were published in March, and the Essays had to be delivered before August 31.

The Council now report that eight essays were sent in and the adjudicators advise the Council not to award the prize to any one of the competitors, but, in view of the considerable amount of work and preparation involved in regard to five of the essays, that the amount offered for the prize should be divided equally between the five writers. I wish to ask you, Mr. Editor, if you think that is what schoolboys call "Playing the game"? I do not know the amount of time each competitor put into his essay, as I have not seen them, but I should say, judging from the long time allowed for its preparation (five months) and the fact that the essay had to be illustrated by drawings or sketches, that an award of ten guineas was a very poor return for the number of hours spent by each of the five competitors, and I question, if the competitors had been told beforehand that the prize value would really only amount to ten guineas, whether they would have spent all the time and labour on their essays.

The fact that the five essayists entered for the competition at all shows that they had the sporting spirit in them, and I think they themselves would have preferred one of their number to have received the honour and remuneration of the whole prize than each to have received one-fifth. If it was a fact that the adjudicators could not between them come to a majority decision as to which essay they considered the best, another member could have been added to their number or have been appointed as umpire.

I believe it was three years ago when this prize was last offered, for an essay on "Central Heating," when, I think, no award was made. At no time more than the present has there been a greater outcry for research work to be taken up in this direction, but if the above is an example of the reward which is to be given for such patience, study and thought, then I can only advise the rising generation of architects, surveyors and sanitary engineers to devote their spare time to more remunerative work.

As a body, I dare say the Royal Institute of British Architects hold more open competitions than any other technical body, yet I never remember their dividing a prize between five competitors; occasionally they have divided the prize between two competitors, but, as a rule, they award their prize to one competitor and "Awards of Merit" to others. I do not wish my letter to deter young men from entering for open competitions, as I think that private enterprise and competition is the only method of bringing about the much-needed improvement in our hygienic system.

"ASSISTANT."

[*** The writer seems to be under the impression that the decision of the adjudicators implied the award of the prize divided among five competitors. We understand that this is not the case. The prize was not awarded at all, and would not in any case have been given for any one of the essays submitted. The £10 10s. voted to some of the competitors was only intended as a contribution to the expense of preparation of the essays.—ED.]

Unification and Registration.

SIR,—As an architect resident abroad, whose opinion has been taken by no professional body (I believe I am correct in assuming that no opinion of any architect outside the governing councils has been taken?), I write to express my disgust at the action of the new R.I.B.A. Council in abolishing the Unification and Registration Committee without hearing its report.

The action so rudely taken savours too much of Cromwellian bad manners. Have those who have usurped the Council chairs at the R.I.B.A. ever heard of the Habeas Corpus Act? They might study it with advantage. The whole business of dismissing anyone without hearing him in his defence needs no condemnation from me—it condemns itself, and condemns any honesty of purpose which might otherwise be claimed by the new Council.

As it is fairly obvious that the new Council does not intend the report of the Unification Committee to be published if it can possibly prevent it—which augurs well for the report—and as those who drew up the report have apparently learned good manners if the R.I.B.A. Die-Hards have not, and do not intend to publish it, is there no other way of letting members know exactly what conditions were proposed by the now defunct Committee? Can you, Sir, give your readers no information in the matter?

The way in which the new R.I.B.A. Council has sought to prevent publication of the report seems to indicate that its conditions are probably acceptable to the great majority of the members of the Societies concerned. Let us know what those conditions were!

"ARCHITECT ABROAD."

Bungalows.

SIR,—As one whose duty it is to let building sites, I am much interested in the letter and plans of your correspondent, Mr. F. N. Kemp. Unfortunately, his evidence is not convincing because it is incomplete.

He omits to give the difference between the size and quantity of the roof timbers, the difference between the amount of necessary excavating on an uneven site, the difference in street charges as affected by frontages on private streets, the difference in length of fences to enclose the sites (assuming they are of equal depth), and perhaps not least the difference in the site values.

That the small bungalow is more easily worked than the cottage of two floors can be admitted, but, although I regret the fact, I am bound to admit that I have still to find any practical builder who will agree that a single-floor bungalow can be built at the cost of a cottage of similar accommodation. On the plans submitted by Mr. Kemp, I venture to say the whole cost of the bungalow will be at least 10 per cent. above that of the cottage.

B. LIPSCOMB.

Southend School Competition.

SIR,—The designs for the above were deposited at the end of September, now two months ago, and no news has yet been forthcoming as to the result. Is it a fact that the assessor and the promoters are keeping the decision back until the end of December in order to provide a nice Christmas Box or New Year's Gift to the successful author?

"COMPETITOR."

The Signing of Architecture.

SIR,—We have three buildings in Stamford signed by George Basevi, Architect. I believe the Fitzwilliam Museum, Cambridge, was also designed by the same hand.

HENRY F. TRAYLEN.

Curing Smoking Chimneys.

SIR,—In answer to M.S.A., Hereford, I should advise him to try the old-fashioned method of "bleeding the flue"; this is done by the insertion of a pipe above the roof line. But a better way is the insertion of tiled louvres. Particular attention must be paid as to what wind causes the trouble; thus, if an easterly wind is the cause the tiled louvre must be inserted on the west side, and so on.

ERNEST HURST.

Other Letters.

Other letters are given on pp. 877 and 885.

Union Buildings, Pretoria.

MR. HERBERT BAKER, A.R.A., F.R.I.B.A., Architect

THE COMPLEAT ARCHITECT.

VI.—EXPRESSION.

By DUDLEY HARBRON.

THE most faithful application of the principles previously enunciated, though resulting in an avoidance of extravagance and a conformity to need, yet leave something lacking, that is present in and part of all great building art, and which separates it from engineering. This quality is designated by many names, all indicating the same indefinite thing—style, the spirit of the age, feeling, expression. In turn this subtle attribute is compounded of many ingredients: social, political, religious, physical, &c., operating through nations and individuals.

Broadly defined, architecture before the Renaissance was a national system of expression, whereas modern architecture is individual. In the old world philosophers did not look upon architecture as an art, as it did not satisfy their supposition that art was imitation. Later thinkers, Croce in particular, have propounded as a creed what every artist feels, that is, that art is the outward expression of an inner emotion. Professor William James has written of the reflex effects as follows: "Yes, in every art, in every science, there is the keen perception of certain relations being *right* or not, and there is the emotional flush and thrill consequent thereupon. And these are two things, not one. In the former of them it is that experts and masters are at home. The latter accompaniments are bodily commotions that they may hardly feel, but that may be experienced in their fullness by *Cretins* and Philistines in whom the critical judgment is at its lowest ebb."

The artist, be he an architect, poet, or painter, when he receives the expressive intuition (which is in itself the complete work of art), seeks to communicate his idea to his fellowmen, chooses that medium in which he is most apt, and through the material media of brick and stone, speech or writing, paint or canvas, illustrates his emotional concept in material form.

It has been said by Walter Pater, that the form of emotion affects the selection of the media of expression—implying that love finds an outlet in poetry, whereas architecture is susceptible to religion. This is too narrow a view, unless by religion is implied life. Only because the great patrons of the past were the priesthood has this delusion been attached to architecture. When architecture was a national affair, the similarity of outlook, the continuity of development, resulted in the formation of style. In proportion to the workers' intensity of application, and the elevation of their ideals, do they achieve excellence.

The Greeks, with a studious cultivation of physical all-roundness, a keen perception of its most subtle muscular reflections, coupled with a spiritual idea of Divine Immanence, could hardly fail with their material and natural environment to evolve a subtle, human-scaled, and reposeful type of manifestation. The men of the Middle Ages, out of the struggles and failures and difficulties of the past, imbued with a passion to express the superhuman and divine, burst all bonds at the end of the twelfth century, when nationally we became consciously expressive; though, the effects of belief not being merely national, but extending over the known world, they expressed not merely a people but a period. For the most part, the progenitors are anonymous. Unknown because unknowable. The advent of the individual, whether Ictinus, Phidias or the Florentine builders, seems to herald the decline.

Since the Renaissance, individualism has reigned alone. Ease of transport and the printing press have together seduced the artist from the straight path to style into the morass of the immediate past. It is not in dispute that individuals have produced fine architecture, that Wren and Inigo Jones, in St. Paul's and the Banqueting Hall, exhibit not only their time but their genius; that the wrangling and jangling before them and since reflect the disputes and contentions in the body politic. The firmness of Cromwell has had its influence on the dignity of St. Paul's. One or two eminent men do not counterbalance national decadence.

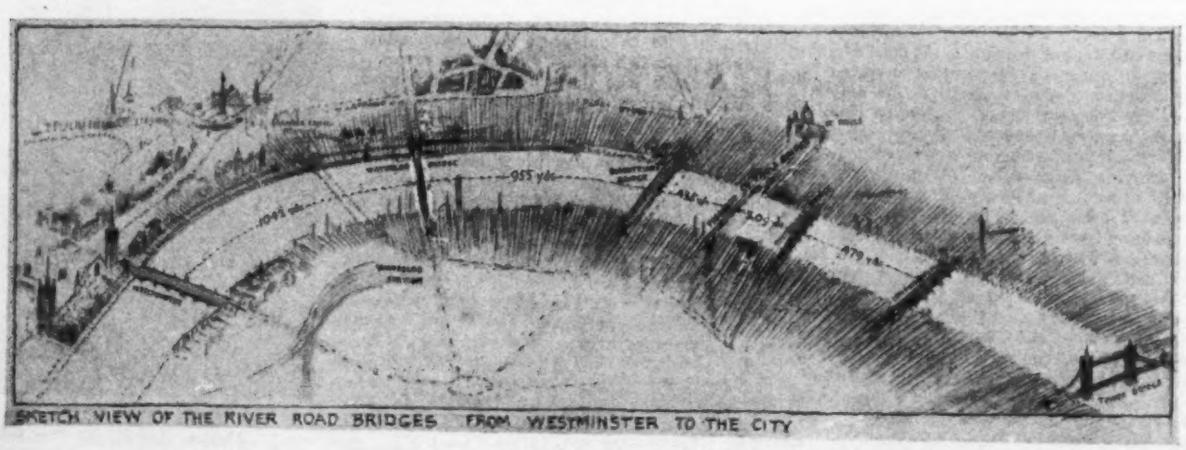
There are not wanting signs that this narrow outlook is widening, that a communal sense is in process of formation. The public need for sensible interpretation is evidenced by the lack of reverence for precedence, a refusal to be fobbed off with inconvenient and archaic adaptations, which an ignorant dilettante urged a pliable profession to provide. This business-like demand is sure to grow in intensity. Architects need not be afraid of the consequences; out of the urgency will assuredly arise that for which we seek.

Though style is dormant, the faculty of expression is not dead. Architecture is in need of a common language; essays in the manner of Francis Bacon, poems on the Chaucerian model in terms of building have no place as expression in the present. Nature and construction are the source respectively of inspiration, and means of execution. The column, except when functioning as such, should be regarded by architects as the surgeon regards the human appendix. It cannot be expected that any individual will evoke a style. Individuals have tried. Only as groups are they the least effective.

They may promote a school, yet their efforts are at best very local. Mainly such groups have radiated from, or focused toward an individual, and with his passing they have passed. It is something larger and wider that is required; a national aim and outlook that can only be approached through a similarity of education, and an agreement philosophically. There is a further step before the coherence of the Middle Ages is approximated, but that lies in the remote future. We have to tackle the problem now, to deal with the present and immediate future. Our educational monitors should foregather and hammer out an elastic creed. Is there not a catchword that will enmesh what we imply by expressions—cannot it be more easily grasped as Function? Material, workmanship, construction, expression—should they not all function? The building in which they are assembled should from every point of view express the function for which it stands. Where this is not obvious it should be because the function is closely akin. Where they are diverse no such confusion should obtrude. We realise this instinctively in articles of everyday use. As soon as decoration interferes with function, it has overstepped the mark; where it expresses function, it is within bounds. We should expect as much consistency in our buildings as in our teapots. Individuality is not in danger of extinction; it best manifests itself through community, which is morally an advance from selfishness to selflessness. Pure decoration may even be functional. Rightly it always is, even when its mission is no higher than to please.

THE FINE ART SOCIETY.

EXCEPTIONAL attraction is offered at the Fine Art Society's Galleries just now. The water-colours and etchings by Joseph Pennell are full of interest and the fine quality of many of these charming little water-colours will come something as a surprise to many who think only of Pennell as a black-and-white artist. We cannot forget the delightful delicacy of his fine sketches of architecture which appeared in magazine literature years ago, nor the more recent etchings and the fine charcoal or pencil or pen studies of the Panama Canal and of various great industrial establishments. After all this able and forcible work a dainty little water-colour like "Quiet" (No. 55) in the exhibition is something of a revelation. And quite apart from the brilliance of many things shown, we place in a category of special account such charming little pictures as Nos. 62 and 58. These illustrations of New York "as we see it from our Brooklyn windows" do realise Mrs. Pennell's words, "its beauty unbelievable and inexhaustible." There are still some of the beautiful pictures by S. J. Lamorna Birch left over from his successful exhibition, which reveal his power in idealising nature. Our readers may remember the fine exhibition of old Irish glass some eighteen months ago. Mr. Stannus has now arranged another one, even better, and including also specimens of modern work which is now being made with the quality and feeling of the old. Architects will be specially interested in the decorative quality.



SKETCH VIEW OF THE RIVER ROAD BRIDGES FROM WESTMINSTER TO THE CITY

[See p. 880.]

THE PRINCIPLES OF ARCHITECTURAL PLANNING.

IN the course of a paper on "Some Principles of Architectural Planning," delivered at University College, University of London, on Tuesday, Mr. Arthur J. Davis, F.R.I.B.A., said the art of planning was as old as the history of the human race; its application was universal, as it touched on one side the science of geography, and on the other a knowledge of its laws was necessary to the designer of the humblest wayside cottage. Good planning was synonymous with sound logic and common sense, and he would remind them that the latter quality was far from being as widespread as one would imagine. His purpose that evening would be mainly to discuss some of the universal laws which at all times had governed the process of architectural composition.

In this country, planning as an art had been very little appreciated either by the enlightened public or even by architects themselves, and for ten intelligent persons who understand good detail and fine proportion in an elevation there was hardly one who would realise the value of a well-conceived plan. They could not be surprised at that when they saw that their Royal Academy banished from the walls of its yearly exhibition all plans, and confined itself to the hanging of pretty pictures.

After approaching his subject from an historical point of view, Mr. Davis said it was chiefly in the vigorous time of the Renaissance, when every intelligent person was keenly interested in the progress of art and science, that town planning and the lay-out of open spaces and public thoroughfares took on the character which they all associated with it to-day. Fine town plans of that period were numerous. The city of Nancy was an excellent example, as were the great town-plans of modern Paris and the ring at Vienna. The skilful lay-out of Buxton, Bath, Cheltenham, Clifton and Plymouth were also worthy of study. In the United States, where one would naturally look for the best and latest examples, it was disappointing to note that, in spite of all the advantages their founders had over those of the early European towns, great opportunities had been missed. In New York the famous gridiron plan, a conception without imagination or real practical value, showed how a shortsighted and mercenary policy could mar what might otherwise be a beautiful city. On the other hand, it was refreshing to see that in Washington and the new parts of Chicago the gridiron idea had given way to a less stereotyped arrangement. In planning it was variety and the unexpected which appealed, but those qualities must be bound together by an orderly arrangement on sound logical principles.

The requirements of large cities varied from year to year. The enormous and ever-increasing size of their modern towns, the daily ebb and flow of the countless multitudes which inhabited them, the introduction of mechanical transport, and the consequent difficulty of regulating the traffic in the busy hours of the day, had given rise to problems which were almost impossible of solution. Unfortunately they seemed to be unable to profit by the experience of their past failures, and it was deplorable to have to record that cities which had expanded to twice their original size in a relatively short period were often controlled by municipalities whose breadth of vision was limited to their tenure of office. In London it was regrettable to see so many missed opportunities to overcome the awkward conditions with which they now found it so difficult to cope. Did they not hear with unavailing regret that the shortsighted policy (the result of the vested interests of the day), caused the abandonment of Sir Christopher Wren's nobly-conceived plan for reconstructing the City after the Great Fire. With that glaring example of lack of foresight from which they were still suffering to-day, it might have been hoped that they had learned their lesson and would not again repeat the errors of the past, and yet the confusion continued. They might liken our modern City Fathers to the Bourbons, who had forgotten nothing and learned nothing. It was not his duty to censure or criticise their town authorities, but to give one example of the lack of vision. Did they not see that when their latest building, the London County Hall, was completed, the great opportunity of constructing on the South side of the Thames an embankment similar to that opposite had been missed and only a narrow footway for pedestrians provided.

It was extraordinary how easy it was to go astray in dealing with even the simplest schemes if they were not considered from a broad and logical point of view. The average Englishman in all matters which did not affect him individually was generally satisfied with half-measures. Unfortunately, the policy of compromise, so dear to his heart, was more often successful in politics than when applied to the solution of architectural problems. That lack of personal interest was responsible in no small measure for the confusion and lack of public spirit which had been manifested in so many attempts at improvements carried out with regard to future expansion and development. He referred to the recent illustrations in the Press showing the proposed reconstruction of the Bank of England and some of the neighbouring properties, and said that in view of the alarming congestion which occurred daily in one of the most crowded centres in the world, it would seem obvious that the foremost consideration would be to take advantage of those re-planning schemes in order to widen the thoroughfares which converged to that spot. Yet they saw that the controversy only touched on the best way of erecting a new Bank with the retention of Sir John Soane's original elevations. The totally revised planning of the whole neighbourhood had never apparently even been contemplated. The Bank of England being a low building, as were many of its neighbours, it followed that if those were replaced by higher structures, housing a far greater population than at present, the already too congested streets would soon become absolutely impassable. Surely the first duty of the controlling authorities should be to say to the owners of those properties: "You shall not be allowed to increase the height of any of your buildings unless you give up to the public a proportionate area on plan." Sentimental regard for an existing structure, even of considerable artistic merit, should not be allowed to override the far more important demands of public necessity.

Considering the question of planning as applied to public buildings on one hand and to domestic architecture on the other, Mr. Davis expressed the opinion that all the public buildings of a city should be erected in prominent positions and should be so designed as clearly to denote their purpose to the passer-by, whereas a private dwelling should be more remote in its situation and make no attempt to attract undue attention. He thought the "screened in" theory was a sound one and could be applied to the most modest domestic building. He considered that the first duty of a private house was to be private. In latter years that idea in many cases had been abandoned, and they saw, with regret, both in this country and in America, wealthy plutocrats erecting houses, the windows of which could be overlooked from the surrounding streets, the ostentatious owner disdaining modesty and privacy, his aim apparently being to impress the public with the splendour of his mode of living.

With regard to the internal arrangement of the well-conceived private house, as the owner would in time become acquainted with every nook and cranny, his architect need not necessarily introduce formal methods of planning which might be considered undesirable from the habitation point of view. The comfort of the family, the guests and servants should be the foremost consideration. Windows, doors and fireplaces, instead of being placed in a formal relation could be considered from the point of view of comfort, avoidance of draughts, privacy and seclusion, and compensation for the loss of architectural grandeur might be looked for in enhanced domestic convenience. It might not be out of place to consider the question of symmetry in planning, as it was frequently asked, "Why are buildings so often laid out in formal and axial compositions regardless of their practical requirements?" There was no doubt that having taken into consideration the situation, levels, and approaches, whenever a symmetrical treatment was possible a more regular and dignified result was obtained. It might be safely said that symmetry had generally been sought for in all fine periods of art, and their mistaken admiration for haphazard compositions was largely due to the idea that those were designed originally with the intention of picturesque grouping. He would warn them to be careful of striving for the picturesque in architecture. It was a delightful quality, but if analysed in most cases it would be found that the result was not premeditated, but was attained by a series of circumstances foreign to the mind of the original designer. Symmetry in planning could only be advisable when the site and requirements were such that that quality could be introduced without undue effort. Hence he ventured to suggest that wherever possible a symmetrical quality was desirable in planning, and he believed that the striving after theatrical and picturesque effects, as such, were against the instinctive trend of the creative mind.

The criterion of a good plan was the case with which it could be deciphered, without the necessity of its various parts being labelled or marked by titles or sub-titles. It should clearly show the type of construction the author had chosen to adopt. New portions should be distinguishable from the old and each individual floor should bear its special characteristic. He would warn them against considering a plan as complete in itself. The good architect would always design in three dimensions. When working out his plans he would consider the elevations and sections which completed them, and at the same time study the constructional engineering questions which were inseparable from their conception. In other words, he would endeavour to design "in space," and he (the speaker) assured them that the power of composing in that manner was much more difficult than it would at first appear. Simplicity and directness were essentials of good planning. Another matter of great importance often overlooked by architects was the question of climax and anti-climax. Architecture to be effective should be treated broadly and simply. The onlooker, whether in a city, a garden, or a building, should never be allowed to feel confused or bored.

In conclusion, Mr. Davis said that when they realised the lasting quality of their productions, and that in their work success or failure took on a more indestructible form than in almost any other sphere of human effort, they should endeavour in every way to make themselves worthy of the great educational responsibility with which they as architects were entrusted, so as to guide and inspire their contemporaries in an intelligent appreciation of the greatest of all the arts.

Architects' Fees for State-Aided Housing Schemes.

The Ministry of Health and the Tribunal appointed by the R.I.B.A. are anxious to obtain a settlement of all claims for architects' fees in connection with State-aided housing schemes without further delay. Architects who still desire the assistance of the Tribunal are therefore requested to apply to the Secretary of the R.I.B.A. on or before December 31, 1922. The Tribunal cannot undertake to deal with cases submitted to them after this date.

ELECTIONS.

AT a business meeting of the Royal Institute of British Architects, held on Monday last, the following were elected to membership:—

FELLOWS.

W. H. Ansell, London.
E. F. Bothwell, Shanghai.
C. F. Callow, Hastings.
J. L. Carnell, King's Lynn.
H. R. Collins, Chester.
D. H. Ditchburn, Bombay.
L. M. Gotch, Kettering.
T. P. Marwick, Edinburgh.
O. Middleton, St. Albans.
W. H. Riley, Leicester.
F. C. Ryde, Weybridge.
E. W. G. Short, Salisbury.
C. G. Soutar, Dundee.
C. Stretton, Leicester.
E. J. Tanner, London.

ASSOCIATES.

W. Alexander, Quetta.
C. W. Allen, Nottingham.
A. E. Angus, Windsor (Ont.).
L. M. Austin, Hammersmith.
G. H. Backway, Wandsworth.
W. Baillie, Glasgow.
W. F. Ball, Gloucester.
W. A. C. Ball, Croydon.
H. C. Bankart, Hampstead.
C. D. Barnard, Leyton.
L. J. Bathurst, Wood Green.
S. L. G. Beaufoy, Holloway.
C. N. Beeston, London.
W. Beeston, Liverpool.
J. W. Binge, New Malden.
E. L. Bird, Chalfont St. Peter.
T. Blakeley, Dewsbury.
A. V. Booker, Forest Hill.
H. E. Box, Maidstone.
J. Bramwell, Liverpool.
R. Briars, Luton.
J. S. Broadbent, Bow.
C. S. Brothers, Liverpool.
A. J. Brown, Welwyn.
W. Brown, Horley.
B. Butler, Dudley.
C. J. A. K. Buysman, Dulwich.
W. H. Caley, Tunbridge Wells.
G. B. Carter, Eltham.
W. Cartwright, Loughborough.
A. M. Chisholm, Birkenhead.
J. Clack, Westminster.
S. Clark, London.
E. H. Cornes, Chester.
G. H. Crickmay, London.
J. H. Crowther, Dewsbury.
A. R. Dent, High Barnet.
F. G. Eastwood, Manchester.
F. W. Eggins, Paignton.
J. Ellis, Cublington.
A. C. Fare, Bath.
A. V. Farrier, Wimbledon.
A. C. Flitcroft, Bolton.
A. T. Flutter, Wandsworth.
C. W. Francis, Hampstead.
B. Fraser, Wallasey.
E. Fryer, Liverpool.
G. C. Gadd, Bromsgrove.
C. E. George, London.
F. N. Gilder, London.
J. S. Glass, Goodmayes.
L. R. Gower, Briton Ferry.
J. Gray, Edinburgh.
E. L. Gunston, Reading.
H. J. Hall, Chelsea.
M. A. Hall, Lincoln.
J. F. Hampton, Paddock Wood.
P. Hickey, Grays.
M. R. Hofler, London.
W. F. C. Holden, Beaconsfield.
J. Hopwood, Harlesden.
L. C. Howitt, Liverpool.
G. E. Hubbard, Newnham-on-Severn.
E. K. D. Hughes, London.
A. J. A. Illingworth, Bombay.
H. E. Jarvis, Banbury.
A. G. Jenson, Edgbaston.
L. John, Cowbridge.
W. A. Johnson, Morton.
T. E. Jones, Dinorwic.
L. H. Kemp, Kennington.
C. Kendall, Ossett.
C. W. Kennedy, East Sheen.
H. C. Killender, Liverpool
G. E. King, Nottingham.
K. Kinna, Liverpool.
F. H. Lambert, Highbury.
G. W. M. Leverkus, Harrow.
G. V. Lidbury, Balham.
R. M. H. Livett, London.
H. G. Lonsdale, Prestwich.
D. A. Lumsden, Birmingham.
J. R. A. McDonald, Jarrow.
R. A. McNaught, Dumbarton.
A. McWilliam, Edinburgh.
B. G. L. Mansergh, Kensington.
J. G. Marr, Aberdeen.
K. [illegible] Meager, London.
C. W. Milburn, Darlington.
J. S. Milner, London.
W. S. Minty, London.
H. L. Moody, Ryde.
F. A. Moore, Bristol.
A. T. Newsum, Long Eaton,
C. Noble, Withington.
E. J. Nutt, Nottingham.
E. D. O'Connor, Leicester.
E. C. R. Page, Newport (Mon).
K. Palmer, Gatley.
J. K. Parker, London.
J. R. Piggott, Stoke-on-Trent.
C. W. Pike, Dorchester.
H. W. Pritchard, Liverpool.
G. G. Quarmby, Burnley.
D. C. Rae, Aberdeen.
A. Rankine, Hull.
J. F. Rees, Newport (Mon).
A. S. Reid, Aberdeen.
F. A. Richards, Westminster.
W. B. Riddell, Hamilton (Ont.).
H. G. Riley, Foxton.
W. J. Rogers, Newport (Mon).
D. J. A. Ross, Inverness.
W. Ryle, London.
F. J. Sawyer, Addlestone.
H. A. Scott, London.
J. C. Shepherd, Liverpool.
E. H. Skipper, Norwich.
L. E. Skipwith, London.
L. S. Slaughter, Hampstead.
W. L. Starling, Chorley Wood.
C. G. Stillman, Winchester.
H. J. Stribling, Slough.
H. D. Sugden, Hampstead.
S. H. Suthers, Petersfield.
C. P. Tanner, Newcastle.
W. L. Taylor, Kintore.
W. R. Templar, Seven Kings.
B. H. Toms, London.
F. E. Towndrow, London.
F. E. Towndrow, Harrow.
R. J. Troup, London.
W. L. Vinycomb, Forest Hall.
G. Whittaker, Blackburn.
H. C. Wilkinson, Nelson.
S. J. Willmott, London.
J. W. G. Wilson, Kensington.
M. L. Winslade, Lee.
W. P. Wynne-Williams, Dulwich.
C. W. Yates, Bristol.
J. R. Young, Harrow.
T. Yoxall, Burslem.

HON. ASSOCIATES.

E. Hudson, Westminster.
C. E. Keyser, M.A., F.S.A., F.S.A.Scot., F.R.Hist.Soc., F.R.Soc. of Litt,. J.P., D.L. (President of the British Archæological Association), Reading.

HON. CORRESPONDING MEMBERS.

Edouard Arnaud (Director of the Teaching of Construction, Ecole des Beaux Arts, Paris).
Donn Barber, New York.
Professor W. Emerson (Director of the Department of Architecture, Massachusetts Institute of Technology, Boston, Mass.).
Bertram G. Goodhue, New York.
Thomas Hastings (Royal Gold Medallist, 1922, New York).
Ernest Hébrard (Grand Prix de Rome, 1904, Paris).
Dr. A. Kogure (Professor of Architecture at the Tokio University).
Charles A. Platt, New York.
Graham Stevens (Director of the American School at Rome).

Notes from the Minutes.

The following are notes from the Minutes of the Council meeting, held on November 20, 1922:—

ARCHITECTS' FEES FOR HOUSING.—It was decided to recommend the General Body to amend the scale of charges by omitting Clause 9, and adding a footnote calling attention to the General Housing Memoranda of the Ministry of Health now governing the fees payable to architects.

ARCHITECTS AND SPECULATIVE HOUSING WORK.—The Practice Standing Committee have arranged to confer with representatives of the following bodies upon the question of deciding upon a scale of fees for architects in connection with speculative housing work:—The National Federation of Building Trades Employers; the National Federation of House Builders; and the London House Builders' Association.

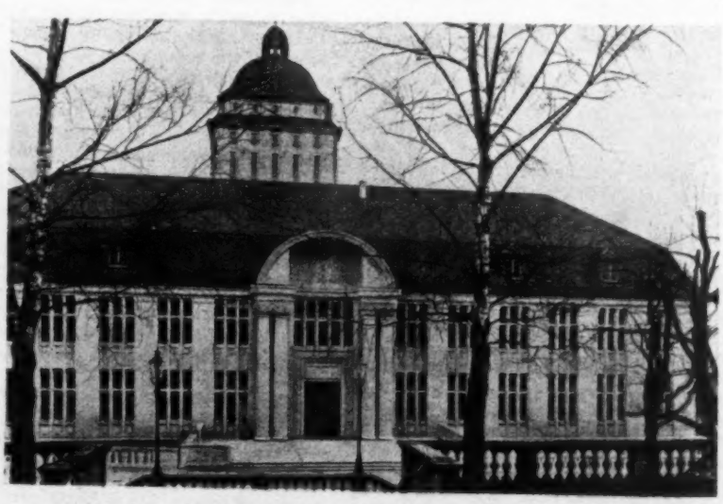
THE R.I.B.A. CERTIFICATE BOOK.—On the recommendation of the Practice Standing Committee it was decided to restrict the sale of the R.I.B.A. Certificate Book to Members and Licentiates of the Royal Institute.

ARCHITECTS AND LIMITED LIABILITY COMPANIES.—The Council are of opinion that it is undesirable for members of the Royal Institute to form themselves into limited liability companies for the purpose of carrying on the profession of an architect.

ANNUAL DINNER.—It was decided that the R.I.B.A. annual dinner should be held on February 26, 1923, in connection with the celebration of the bicentenary of Sir Christopher Wren.

Shropshire Societies Amalgamate.

The Shropshire Archæological and Natural History Society and the Shropshire Parish Register Society have decided to amalgamate.



Biological Institute, Zurich University.
PROFESSOR K. MOSER, Architect.

ARCHITECTURAL SOCIETIES.

OXFORDSHIRE SOCIETY OF ARCHITECTS.

THE first of a course of lectures on architecture in connection with the Oxfordshire Society of Architects, was given in the Town Hall recently by Mr. Edward Warren, who dealt with "The point of view in the study of architecture." He asked of the world in general, what mental image did the name of Oxford evoke? To those who intimately knew and loved the city, and the terms in this case were almost synonymous, especially to those who had passed some of the most impressionable years of their youth within her walls, the image was an architectural image. The instinct to which the beauty and dignity of those buildings were due was a sure instinct, that of expressing the nobility of "true religion" by noble architecture, and the dignity of "sound learning" by the dignified housing of scholarship. Oxford being what Oxford was, could they doubt for a moment that she had unconscious influence on all receptive minds, which rendered her pre-eminently fit for the conscious and carefully ordained training of students of the great art of which she was so conspicuous an exemplar? She numbered amongst her sons the greatest amongst British architects, Christopher Wren, as well as such names as John Ruskin and William Morris. He was, perhaps, trying to convince the already convinced as to the pre-eminent fitness of Oxford for a school of architecture. Their lectures then were, they hoped, forerunners of such a school, and they had the immediate hope that they might be accompanied by classes in architecture, construction and design, primarily intended for young men studying architecture with a view to its practice, whether members of the University, or pupils, or assistants in the offices of Oxford architects, but open to all serious students who would follow a definite course of training.

The lecturer then dealt with the style, or manner, of buildings in different countries, and went on to say that style, or manner, of building had arisen, naturally, from building necessities and materials, and this he held to be strictly true of all real styles or constructive manners, but it did not, of course, cover adopted or half adopted fashions in architecture, or attempted revivals of ancient manners. In England, and markedly in Oxford, the native, local style of building lingered long after the half-hearted adoption of a foreign manner, known as that of the Renaissance, and derived from the French, the Flemings, and the Germans, who were copying the Italians, who were copying, more or less, the remains of Roman buildings and Greek statuary, which they were re-discovering. The acceptation in this country was for a long time slow and half-hearted, and, throughout England, and more particularly in the West, there were many curious and interesting instances of survivals of, and reversions to, the native manner of Gothic architecture; but none, so far as he was aware, more marked than in Oxford, which had been called the "home of lost causes," and had certainly been so in regard to native Gothic architecture when that was already a lost cause elsewhere.

To the student of architecture, continued the lecturer, and especially to those who were studying it with a view to its practice, that deepening of consciousness as to all forms of buildings and their accessories, was inevitable and necessary. They must have a point of view and a critical one; they must acquire a fair knowledge of the constructive history of their craft, as well as of the recognised and accepted rules of modern construction. Some knowledge also, not necessarily deep but accurate as far as it went, of social history and its manifestations in architecture was absolutely necessary. Domestic architecture was the most vivid illustration of social history. Architecture, as an illustration of history, and history as an explanation of architecture were such fascinating studies in themselves that the true student of either would inevitably be drawn to the other. But no mere historical or archæological reading would lead them far in the understanding of architecture without the earnest study of its basic principles, its constructive needs, and their expression in proportion, balance and harmony, its protective necessities, and their acceptation and treatment as contributive accessories of design.

The Society held the second lecture of the series in the Ashmolean Museum. Mr. R. P. Jones, M.A., was the lecturer and Professor Percy Gardner was the chairman. The subject, illustrated by lantern slides, was "The Greek Point of View."

Greek architecture, said Mr. Jones, comprised the most perfect that had ever been produced. There were two qualities which had to be considered in studying its development. Firstly, that its ornament was essential to its construction; secondly, sculpture was applied to the architectural forms and was complete and as distinct from them. There were not more than about a dozen Greek temples existing in anything but a fragmentary state. There was one word which fitly described Greek work, and that was "lucidity." It was simple and direct and obviously had a timbered prototype. The form and position of the Triglyphs were sufficient evidence and indicated that beyond doubt Greek temples always existed in a brilliant atmosphere. The matter of lighting, although a subject for a great deal of conjecture, was one which was probably considered of small importance by the Greeks. The lighting of their temples lessened as one approached the inner Sanctuary.

The method of building was from the outside inwards. That was entirely reversed in later ages. The basis of their design was the column with its entablature. Size made no difference, for smaller proportions were used in all buildings whatever their actual dimensions. There was a purpose in the flutes to the columns. The strong sunlight on plain columns gave a very definite line between the light and shady portions of the column, and that might have been thought to have detracted from the æsthetic value. Now the flutes transferred a quantity of light to the shadow and a quantity of shade to the light surfaces. Greek architecture was trabeated. There were no arches giving thrusts and it was in fact exemplary of the policy of their present Government in its "tranquillity, quietness and sedateness." That being so, there was no need for cementing material and the various stones and features were built one upon the other with dry joints. After the burning of Athens by the Persians it fell to the lot of Pericles to produce the great works which formed so important a standard in the chronology of architecture.

Photographs of the Acropolis with its Parthenon, Erectheum, Propylea, Temple at Nikeapteros, &c., were shown, from which it was clear, he said, that the exterior of a Greek building does not express the arrangement of its interior. Carefully-taken photographs showed the slope of the columns, the horizontal curvature, &c., as examples of mathematical refinement. Excellent photographs of the Theseum, the Temple at Paestum, the Choragic Monument of Lysicrates, the Temple of the Winds, the Temple of Concord, &c., concluded an interesting lecture.

Professor Gardner thanked Mr. Jones for his lecture and said the building in which they were was designed by Cockerell on the model of architecture shown in these Grecian temples, excepting the fact that the back portions had been neglected architecturally.

BRISTOL SOCIETY OF ARCHITECTS.

MR. J. A. GOTCH (of Kettering) recently gave a lecture to members of the Bristol Society of Architects at the Royal West of England Academy, the subject being the "Homes and Courtiers of Queen Elizabeth."

Mr. Gotch said that as the prospects for a peaceful life became more certain to the people of England prior to Queen Elizabeth's reign the desire for comfort, rather than security, was manifested. The ponderous contrivances for ensuring safety which had hitherto been necessary were found inconvenient to the increasing refinements of the age. For fully 60 years a great building period lasted, and there was hardly a village that could not show some work dating between the years of 1560 and 1620—a period which practically covered the reigns of Elizabeth and James. The work had a flavour peculiar to itself, and different from that of any other time or country. Before, it was the Tudor style, still distinctly Gothic, and afterwards came the universal Classic, which gave us buildings closely resembling those which were being erected in all other parts of Europe at the same time. Whatever the shortcomings of the Elizabethan work, and however foreign its adjuncts, it was English in its essence, and was always interesting. The peculiarity of this particular style lay in the manner in which English workmen used Italian features on English soil and carried into the Classic forms brought from abroad some of the Gothic ideas they had acquired at home. The bay windows, the steep gables, the lofty chimneys they retained, and developed the mullioned window until it became an essential characteristic of their work. All the Italian dress was put on a body that was entirely English, namely the plan of the house. The result was interesting, for on the one hand old customs and established wants were satisfied, whilst on the other new forms and new methods of expression, quite different from anything that tradition could supply, were provided. Those were the somewhat incongruous elements out of which the bright and eager spirits of the time fashioned the piquant architecture of Elizabeth's day. There was no longer need for special precautions against attack, but there was a great desire for magnificence, privacy, and more light, all requirements of which were fulfilled. One other quality which was often characteristic of the homes of that period was their pedantic quaintness. The arbitrary fancy of the architect played a great part in the designs of the day, but the master workmen themselves seemed to have done most of the designing of the various features. They built for the descendants of the builder, and a characteristic feature of all those great houses was the frequency with which the family crest, coat of arms, and the initials of the founder were fashioned in all parts of the building.

THE SOUTH WALES INSTITUTE OF ARCHITECTS.

THE annual prize distribution and exhibition of designs and measured drawings was held in the assembly hall of the Technical College, Cardiff, when about 100 fellows, associates, and students of the South Wales Institute of Architects, Central (Cardiff) Branch, and their friends were present. Mr. E. C. M. Willmott, A.R.I.B.A., presided.

Mr. Percy Thomas awarded the prizes to the successful students, the prize-winners being as follows:—Atelier: 1st, Colin Jones; 2nd (equal), C. F. Bates and L. S. Hatchard. Day School, design: 1st, L. Monroe; 2nd, B. Thomas. Measured drawings: 1st, L. Monroe; 2nd, J. B. Wride.

Mr. W. S. Purchon, the Head of the Department of Architecture in the Technical College, gave a brief address on the work of the School of Architecture, and announced that during the session the recognition of the school by the R.I.B.A. had been confirmed after an inspection by visitors from the Board of Architectural Education. He pointed out that architectural education for the public was an important part of the work of a school of architecture, and expressed the willingness of the Cardiff School of Architecture to co-operate with the local secondary and high schools in an attempt to stimulate the interest taken by young students in the art.

Birmingham Architectural Association.

A report of the last meeting of the Birmingham Architectural Association is given on p. 881.

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ILLUSTRATIONS.

House at Bray.

This house has recently been built on the river at Bray. The half-timber work is in English oak finished with the adze, and the roof covered with old tiles. The workmanship throughout is of that home-made character which a house of this kind demands. The accommodation consists of dining hall, parlour, and billiard-room on the ground floor, with usual kitchen premises, including servants' sitting-room and working kitchen. On the first floor there are six bedrooms and bath room, and on the attic floor three servants' rooms with bath-room. The builders were Messrs. G. E. Wallis & Sons, Ltd., Maidstone, Kent. Messrs. George Wragge, Ltd., of Manchester, supplied the casements and leaded lights. Messrs. Baillie Scott & Beresford were the architects.

House at Chilham.

This half-timber house has recently been built at Chilham, in Kent, and the materials used for it were mainly derived from an old derelict farmhouse and buildings in the neighbourhood. The builders were Messrs. G. E. Wallis & Sons, Ltd., Maidstone, Kent. The casements and leaded lights were supplied by Messrs. George Wragge, Ltd., of Manchester. The architects were Messrs. Baillie Scott & Beresford.

House at Grays.

We also illustrate a house at Grays, Essex, for which Mr. W. Curtis Green, F.R.I.B.A., is the architect.

New Almshouses, Hounslow.

We illustrate (p. 875) photographs of the Butchers' Charitable Institution's new almshouses at Hounslow, now on view at the R.I.B.A. exhibition. The completed scheme will give accommodation for over sixty pensioners, and is in the form of an open forecourt to the road with a quadrangle behind. The portion completed consists of quarters for thirty-two pensioners, superintendent's and nurses' houses, laundry and workshop, stores, &c. Messrs. Norris & Co., of Sunningdale, were the builders, and Mr. W. H. Ansell, M.C., F.R.I.B.A., the architect. The buildings are all faced with 2 in. bricks, with Portland stone columns, bays, &c., and the roofs are of grey-green Cornish slates. Window frames are of oak with steel casements; window sills of red tiles. The floors are fire-resisting.

The following were the sub-contractors: Leaded lights, Messrs. Geo. Wragge, Ltd., Manchester; electric lighting, Messrs. Waring, Withers & Chadwick; stoves, The Falkirk Iron Co.; casements, Messrs. J. Gibbons; gates and ironwork, Messrs. Strode & Co.

MEETINGS.

FRIDAY, *December* 8.

London Society.—Mr. H. A. Cox on "London Before the Great Fire and Now." At 18, Johnstreet, Adelphi, W.C. 2. 5 p.m.

College of Estate Management.—Sir J. C. Stamp on "Economic Aspect of the Restriction of Rents." At 35, Lincoln's Inn Fields. 5.30 p.m.

Town-Planning Institute.—Professor P. Abercrombie on "Site for London University." At Institution of Civil Engineers, Great George-street, S.W. 1. 6 p.m.

SATURDAY, *December* 9.

Royal Institute of British Architects.—Visit to Messrs. Farmer & Brindley's Marble Works, 63, Westminster Bridge-road, S.E. 1. 10.30 a.m.

MONDAY, *December* 11.

Clerks of Works Association.—Mr. N. Heaton on "Recent Progress in the Protective Value of Paints." At Carpenters' Hall, E.C. 7.45 p.m.

TUESDAY and THURSDAY, *December* 12 and 14.

Architectural Association.—Students' Pantomime.

WEDNESDAY, *December* 13

Manchester Society of Architects.—Mr. J. S. Beaumont on "Reconstruction of the Forum of Nerva, Rome." At 8 p.m.

Northern Architectural Association.—Mr. E. B. Kirby on "Fashion and Form." At 7.30 p.m.

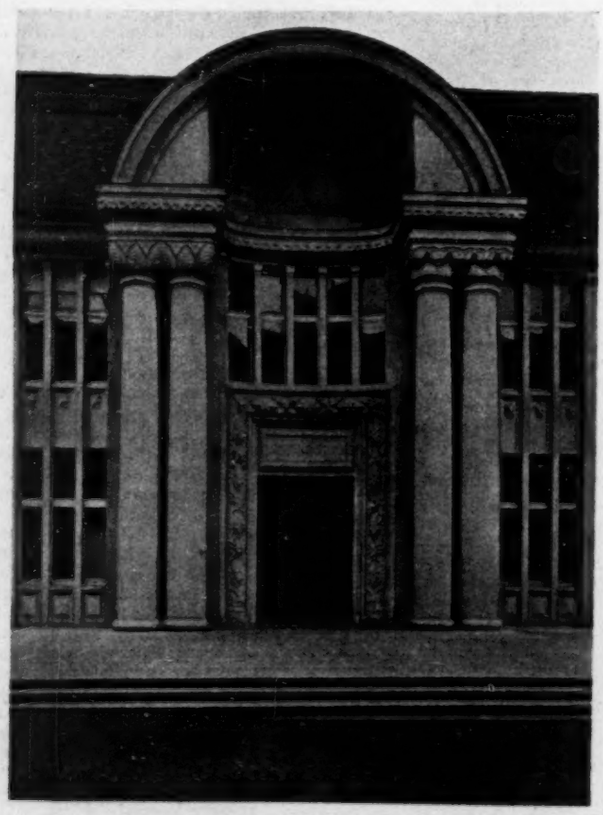
THURSDAY, *December* 14.

Institute of British Decorators.—Mr. M. Drake on "Technique of Mediæval Glass Painting." At Painters' Hall, E.C. 4. 7.30 p.m.

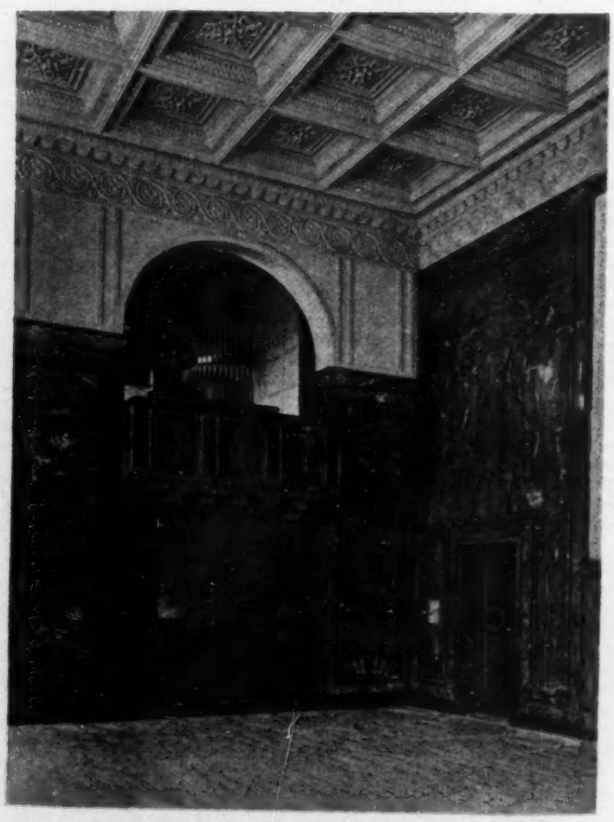
Edinburgh Architectural Association.—Mr. E. Chubb on "Development of Modern Security Work." At 117, George-street, Edinburgh.

Sheffield and District Society of Architects.—Professor C. H. Reilly on "Modern Architecture of Two London Streets: Regent-street and the Strand." At 13, St. James'-row, Sheffield.

Society of Antiquaries.—Mr. H. Brakspear on "Excavations at some Wiltshire Monasteries." At Burlington House, W. 1. 8.30 p.m.



ENTRANCE TO THE BIOLOGICAL INSTITUTE.



THE LECTURE THEATRE.

Zurich University. PROFESSOR K. MOSER, Architect.

SOUTH FRONT.

[Shown at the R.I.B.A. Exhibition of Contemporary Architecture.—See p. 863.]

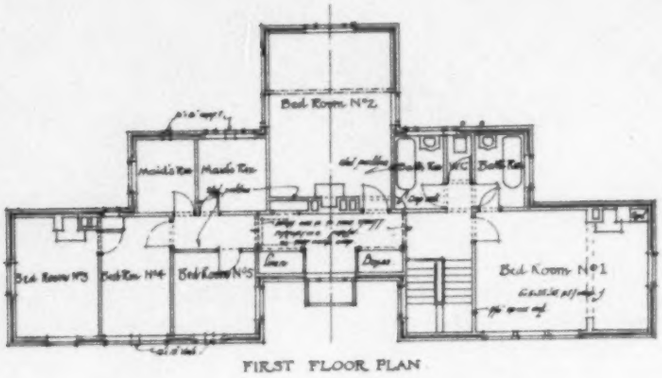
EAST FRONT.

House at Bagley Wood, near Oxford. MR. H. M. FLETCHER, F.R.I.B.A., Architect.

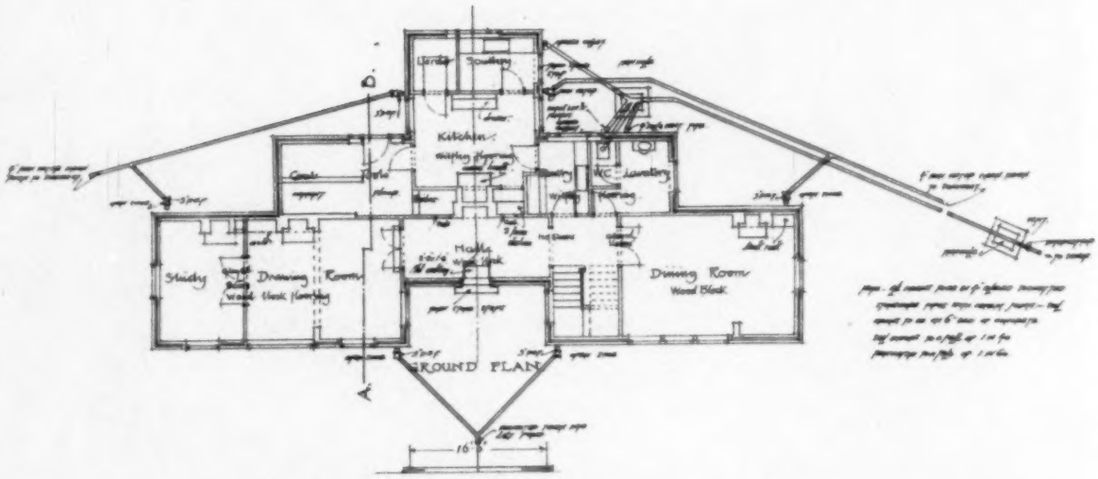
Unfinished Screen, War Memorial Chapel, Emanuel Church, Southport.
Mr. W. E. Vernon Crompton, F.R.I.B.A., Architect.
[Shown at the R.I.B.A. Exhibition of Contemporary Architecture—*See p.* 863.]

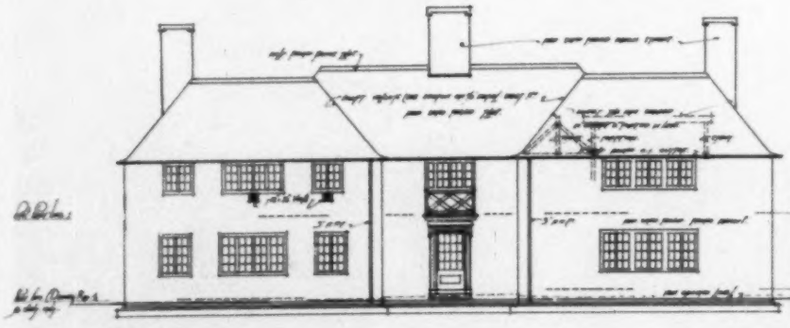
HOUSE AT GRAYS ESSEX.

1/8 SCALE PLANS

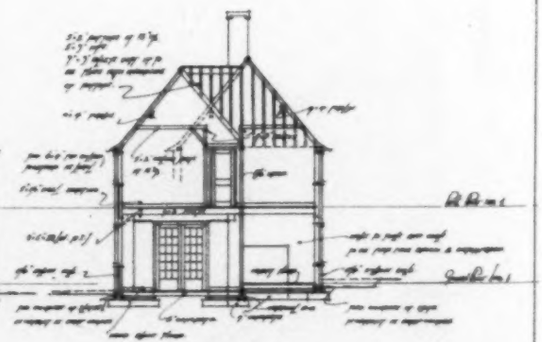


FIRST FLOOR PLAN

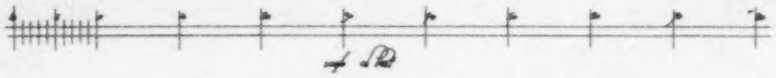


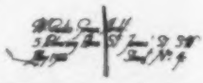


SOUTH ELEVATION

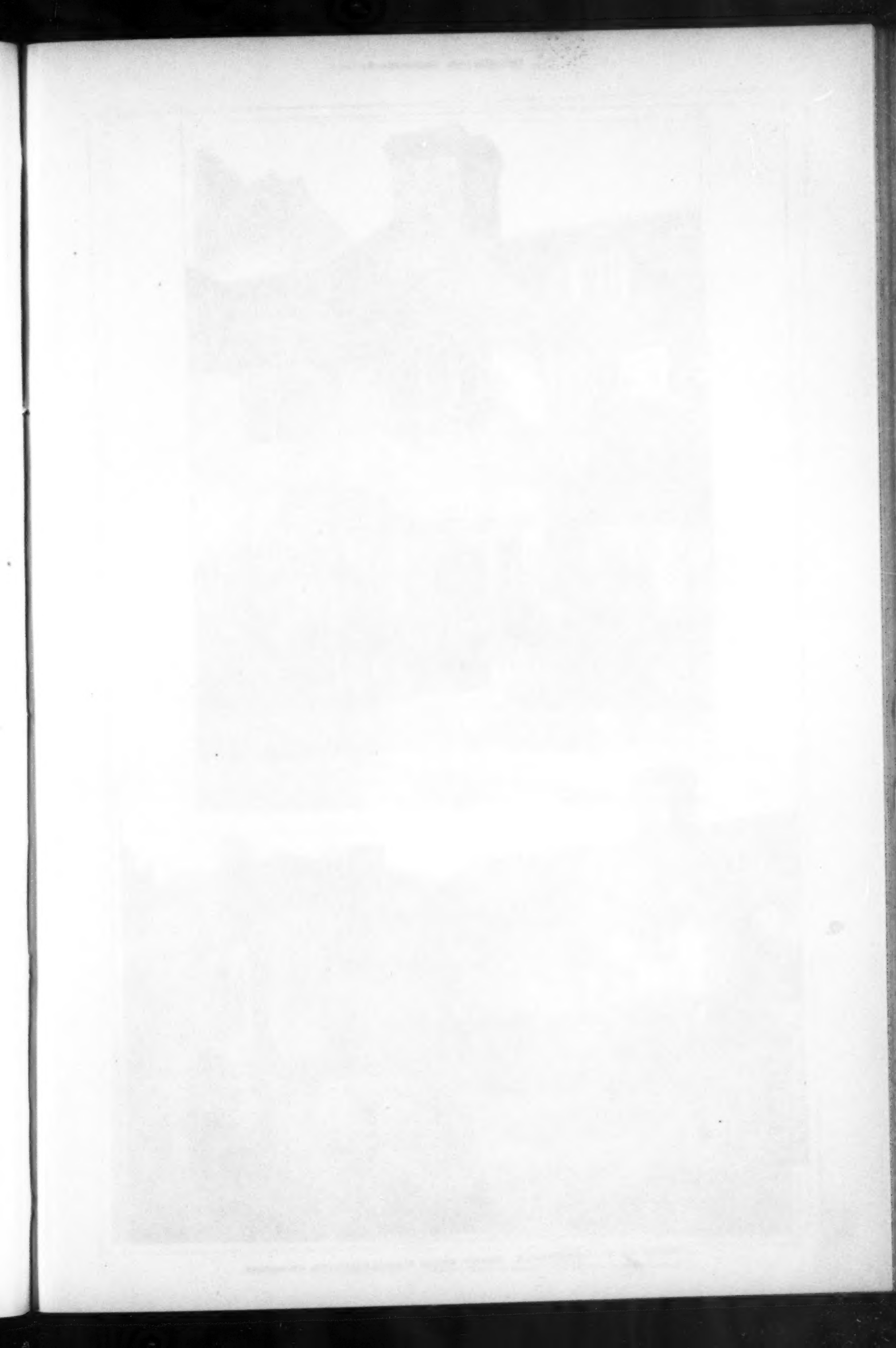


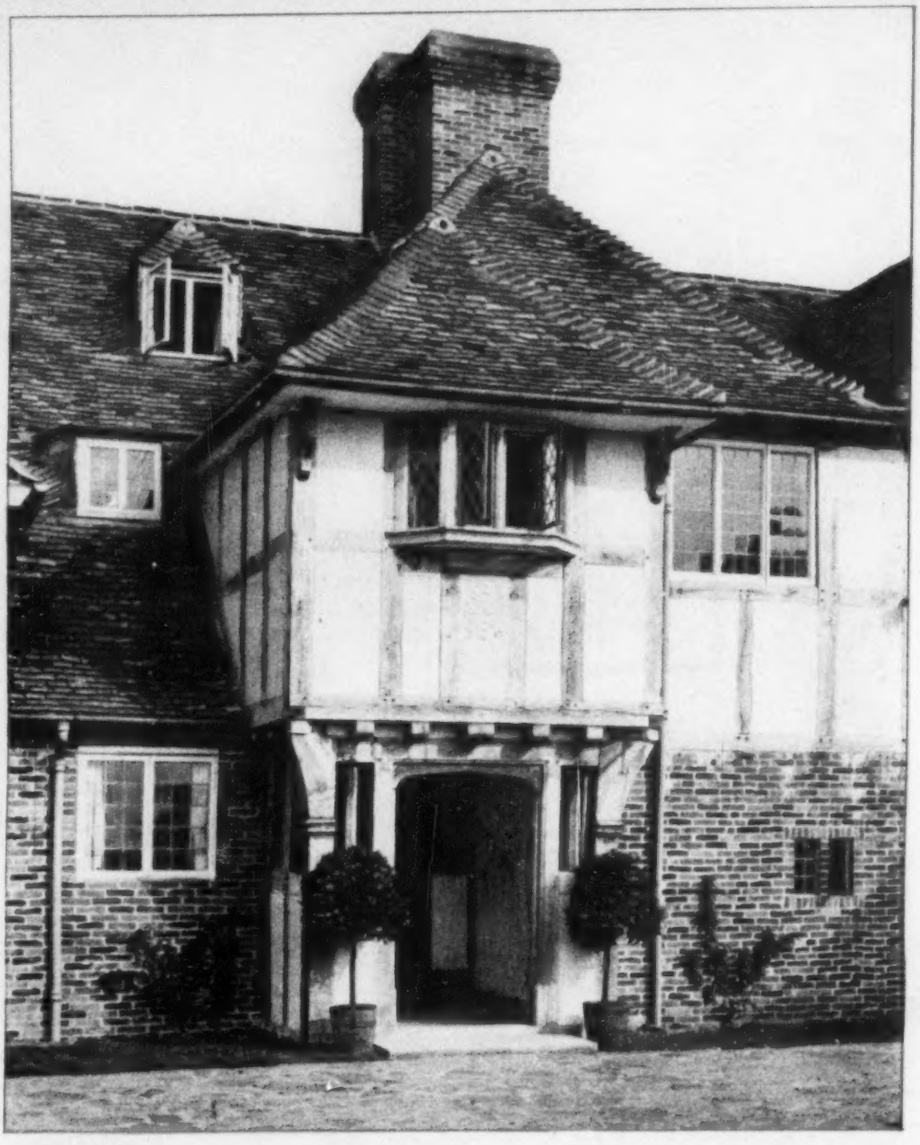
CROSS SECTION AB





HOUSE AT GRAYS, ESSEX. MR. W. CURTIS GREEN, F.R.I.B.A., ARCHITECT.





HOUSE AT BRAY-ON-THAMES. MESSRS. BAILLIE SCOTT & BERESFORD, ARCHITECTS.

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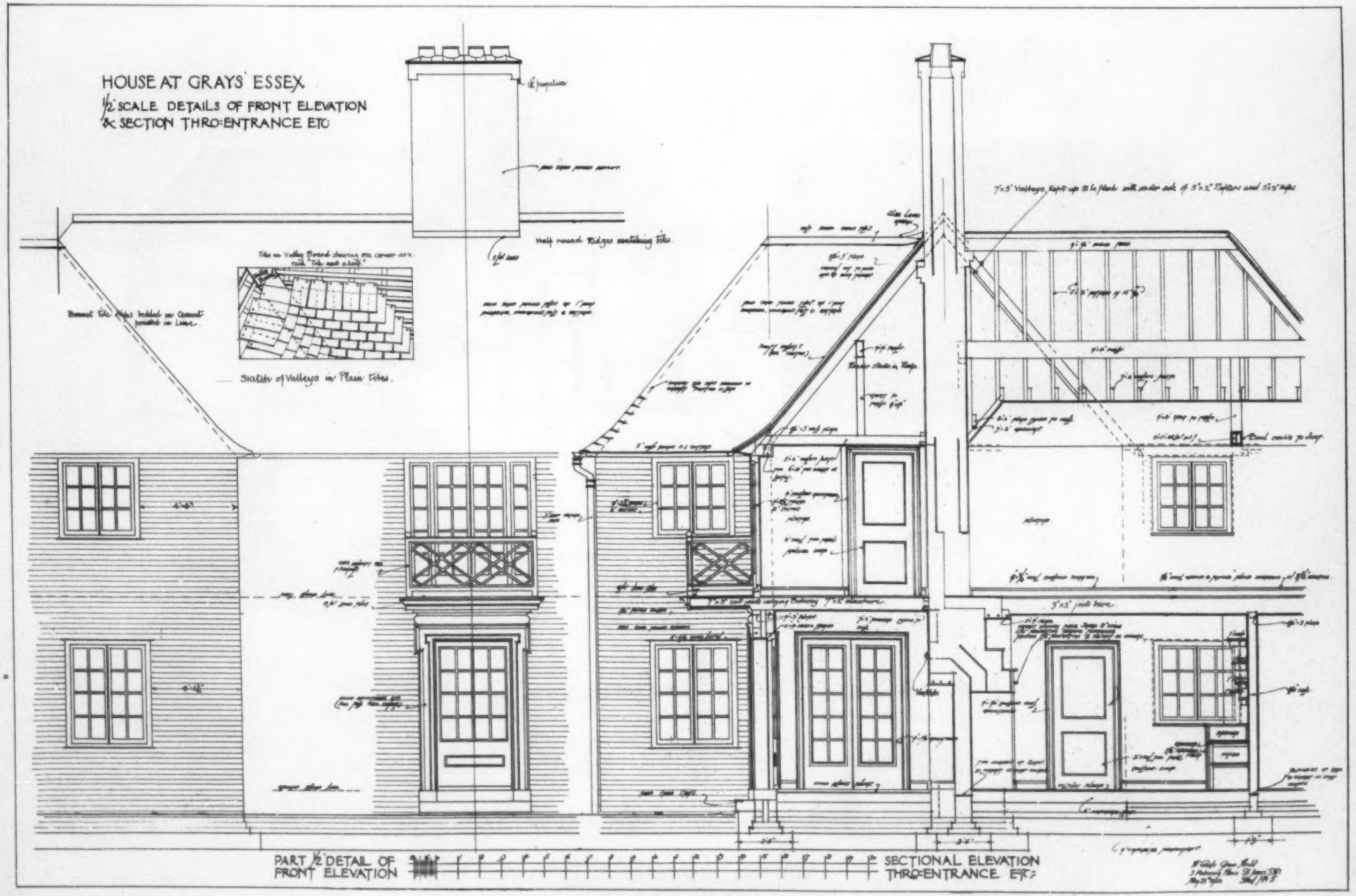
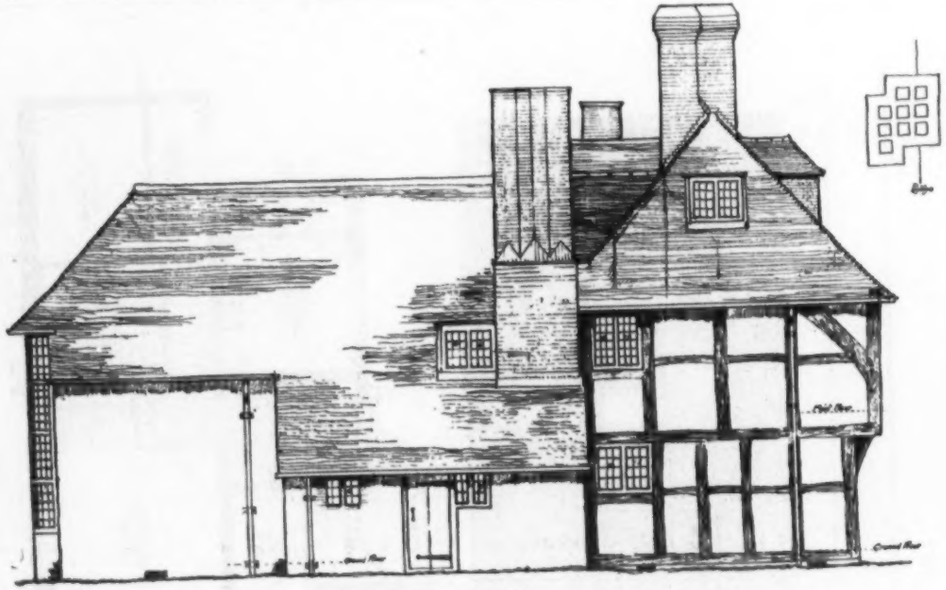

HOUSE AT GRAYS ESSEX.
½" SCALE DETAILS OF FRONT ELEVATION
& SECTION THRO: ENTRANCE ETC
Half round Ridges matching Tiles
Sketch of Valleys in Plain Tiles.
PART ½" DETAIL OF FRONT ELEVATION
SECTIONAL ELEVATION THRO: ENTRANCE ETC:

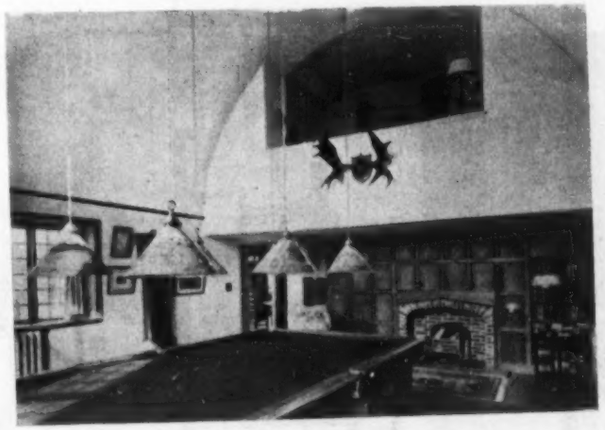
HOUSE AT GRAYS, ESSEX. MR. W. CURTIS GREEN, F.R.I.B.A., ARCHITECT.

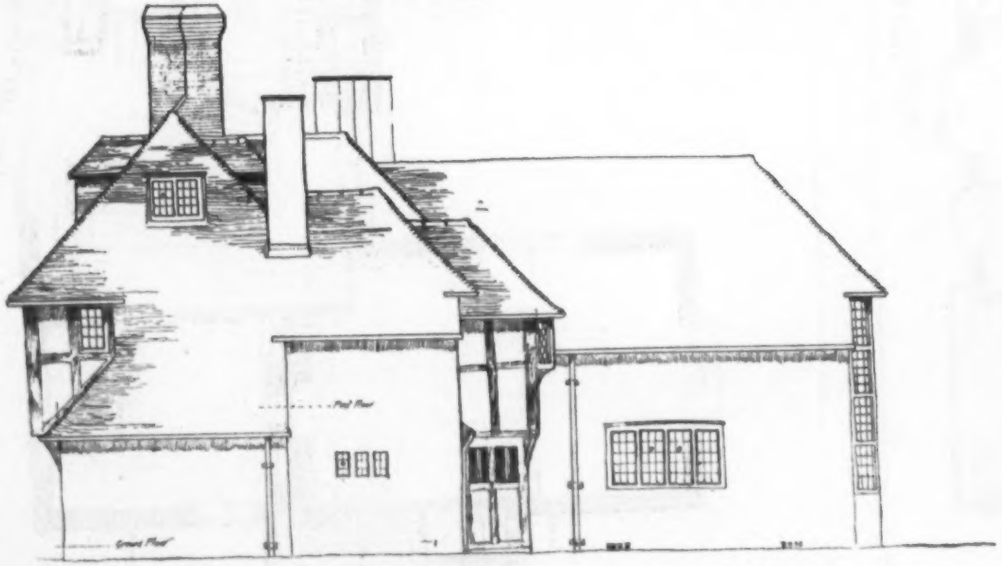
PROPOSED HOUSE at BRAY on THAMES for J. H. CRISPE, Esquire



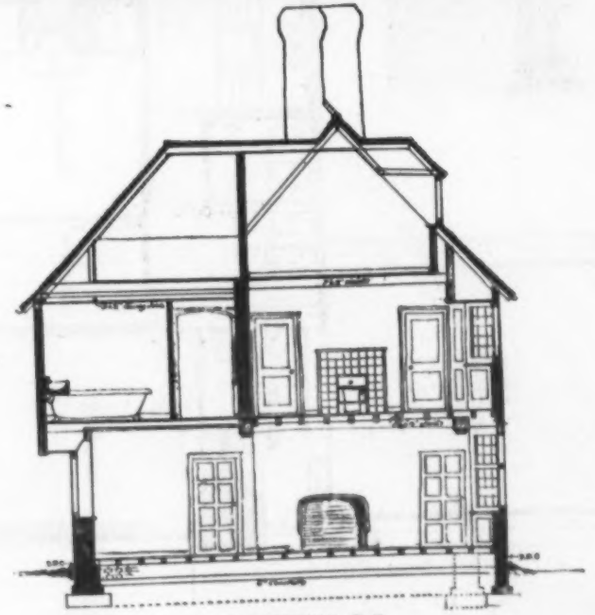
EAST ELEVATION

PLAN of CENTRAL CHIMNEY STACKS



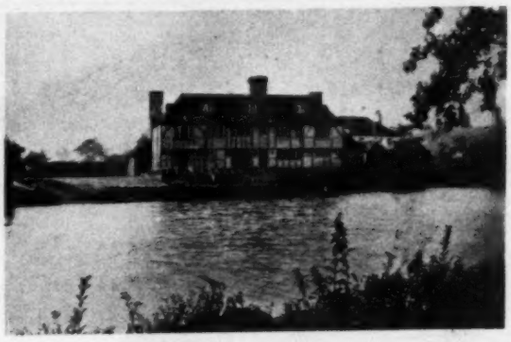


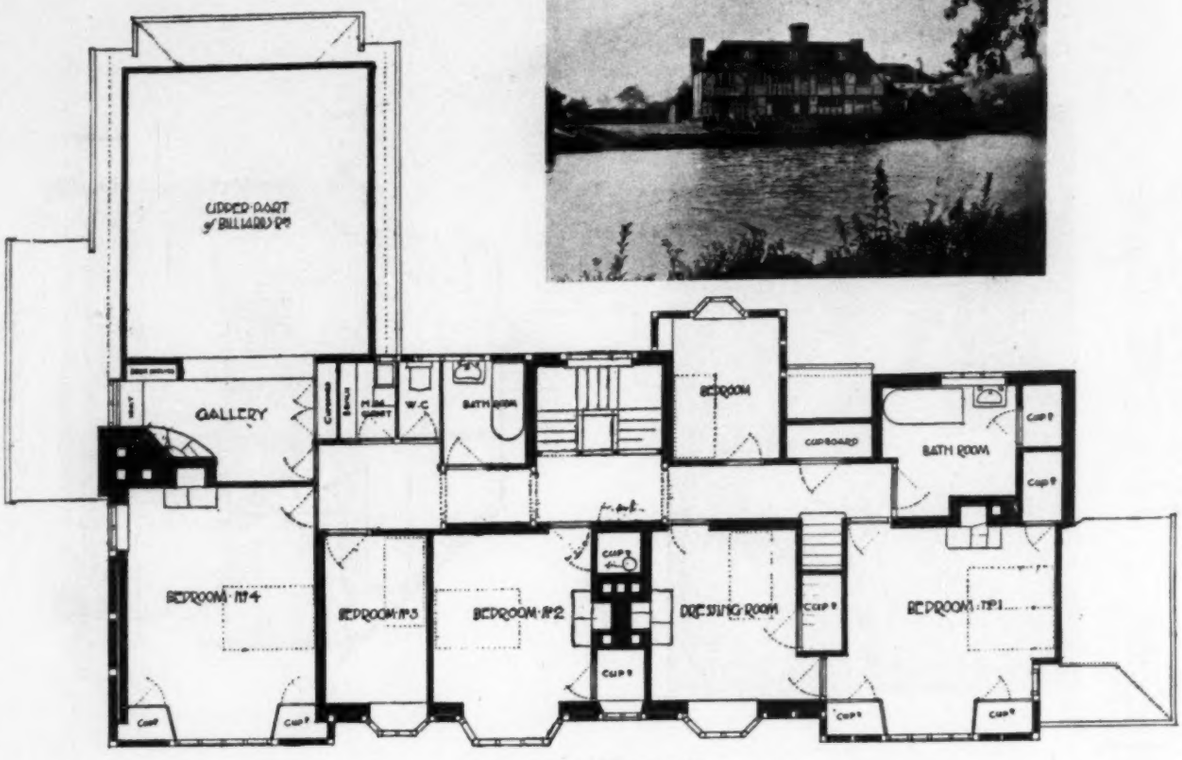
WEST ELEVATION



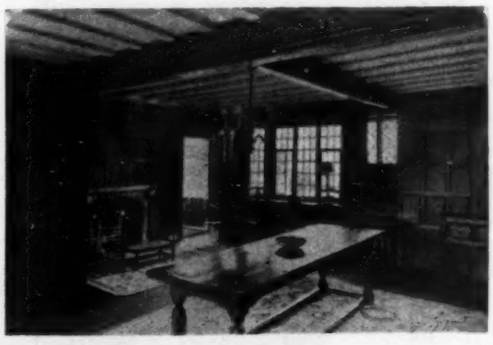
SECTION B-B

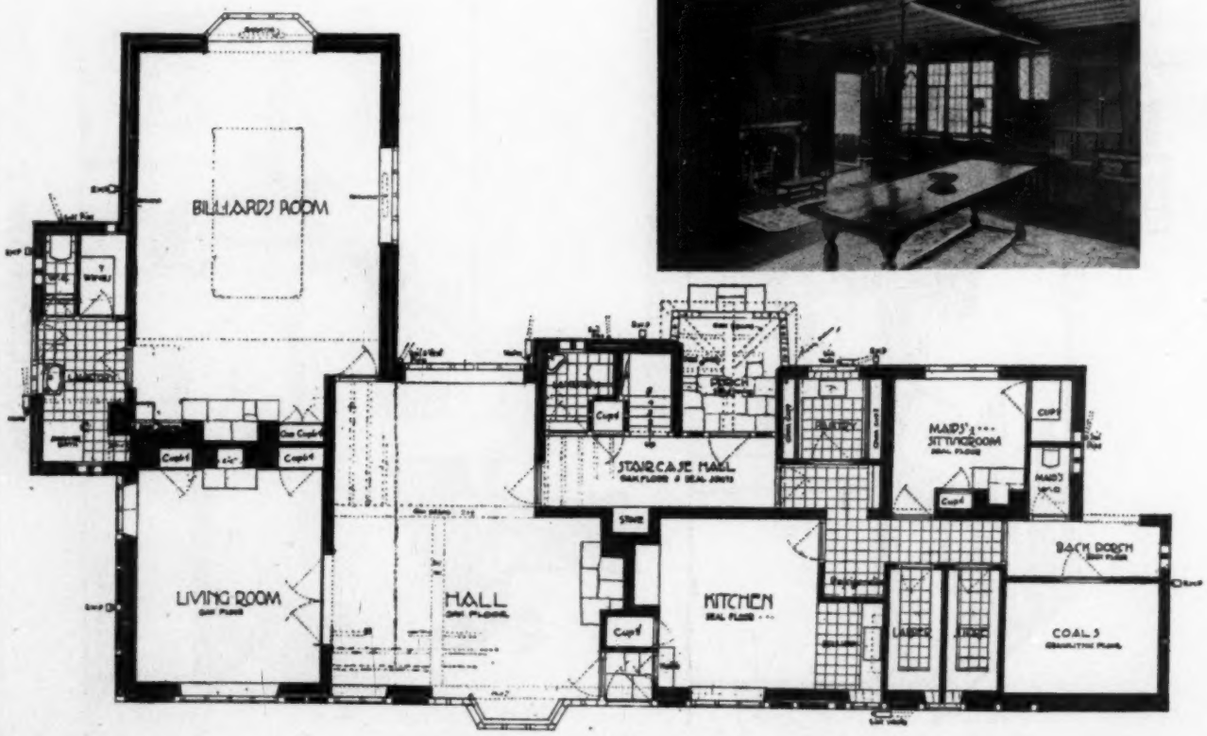
MESSRS. BAILLIE SCOTT & BERESFORD, Architects.





FIRST FLOOR PLAN





GROUND FLOOR PLAN

House at Bray-on-Thames. MESSRS. BAILLIE SCOTT & BERESFORD, Architects.

· The East ·

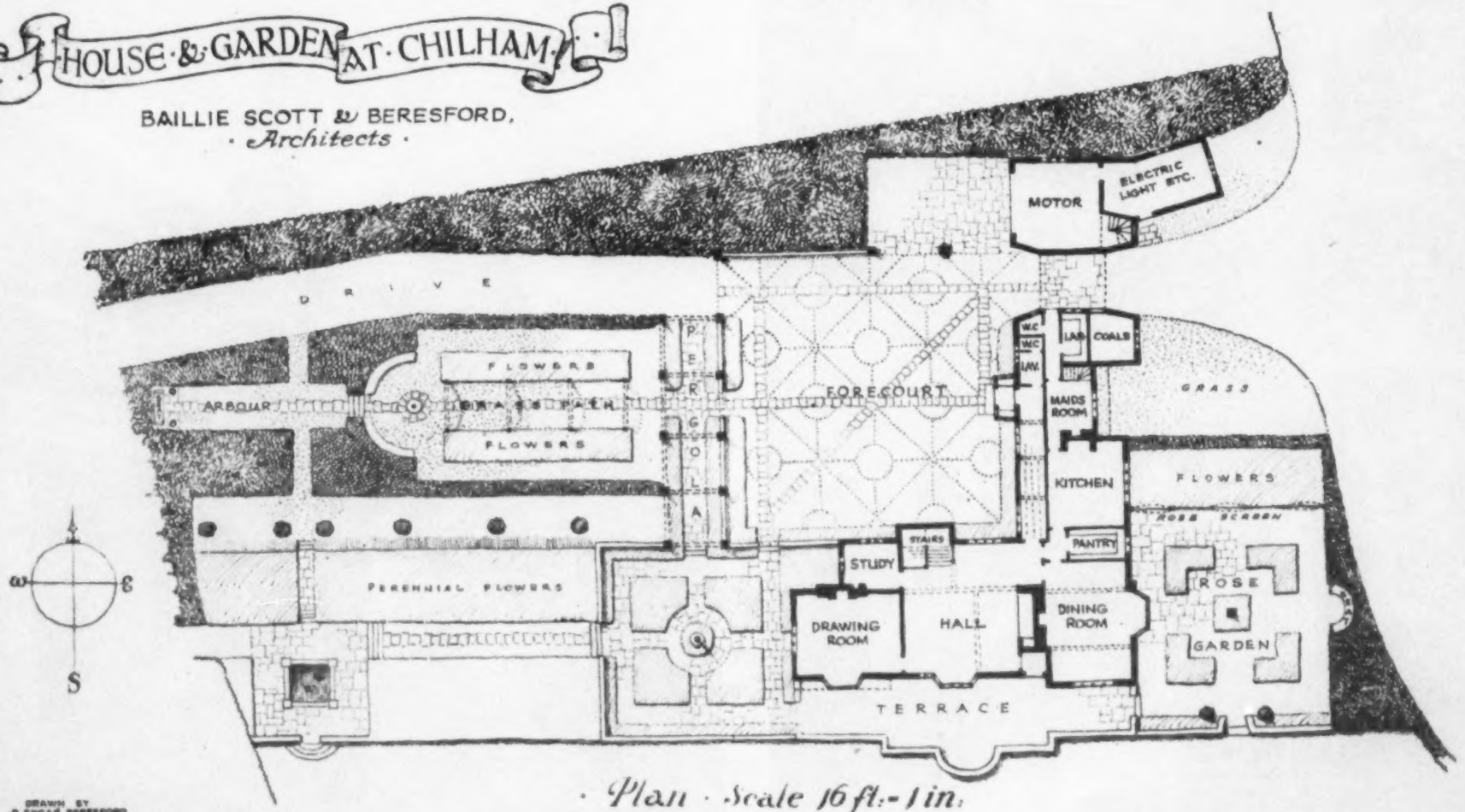
· The West ·

Scale 8 ft:- 1 in:

The South

HOUSE & GARDEN AT CHILHAM

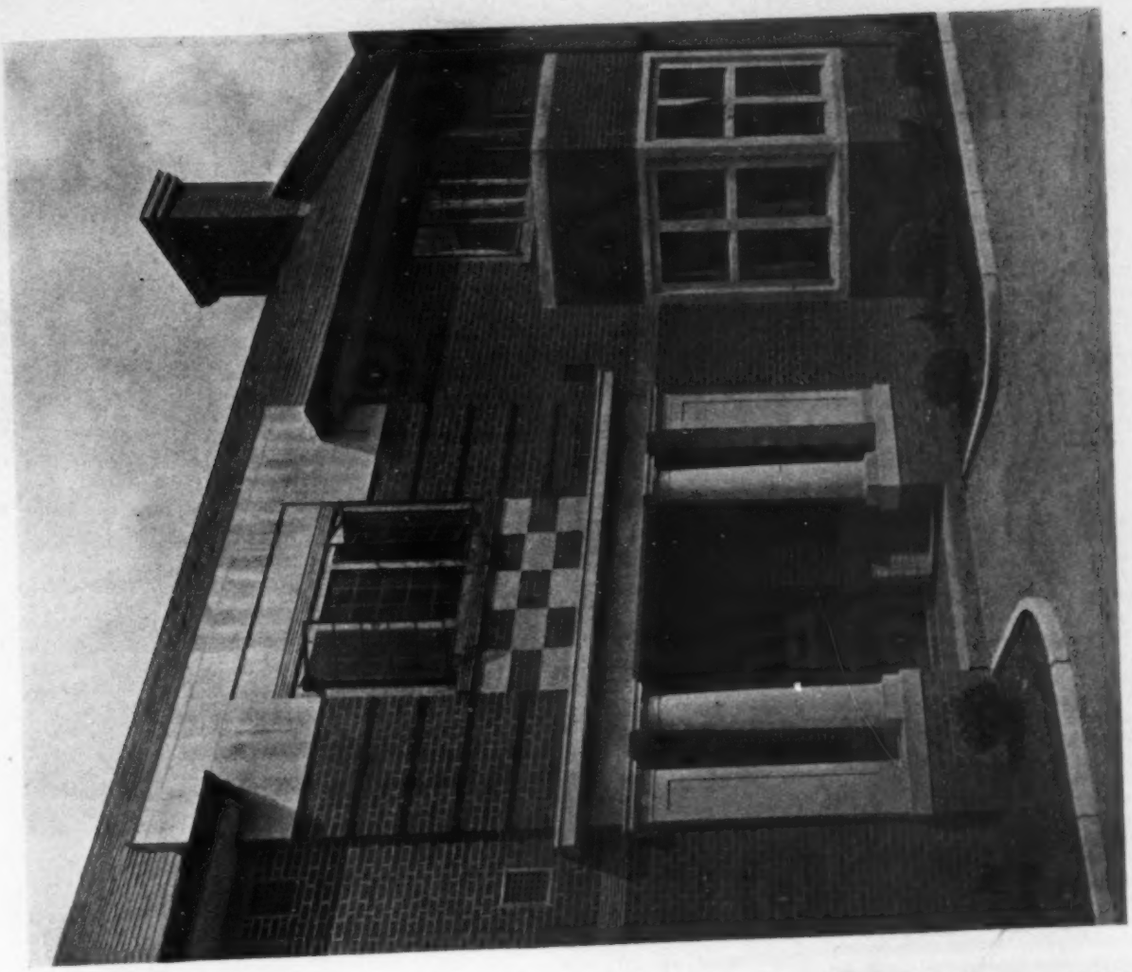
BAILLIE SCOTT & BERESFORD,
Architects



DRAWN BY
A. EDGAR BERESFORD
9-5-21

Plan · Scale 16 ft.=1 in.

MESSRS. BAILLIE SCOTT & BERESFORD, ARCHITECTS.



Butchers' Charitable Institution, Hounslow. Mr. W. H. ARSELL, F.R.I.B.A., Architect.—(*See p. 870.*)

[Shown at the R.I.B.A. Exhibition of Contemporary Architecture.—*See p. 863.*]

BOOKS.

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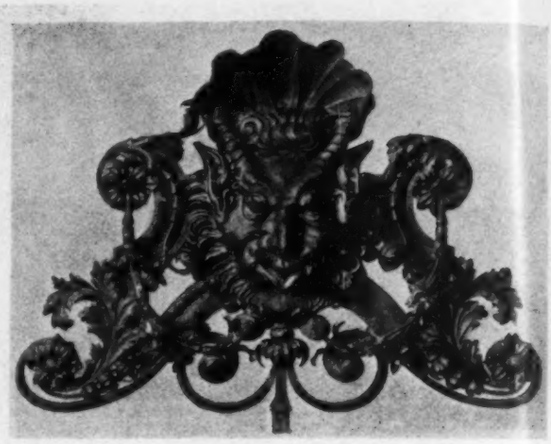

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Gate (about 1750) in the Victoria and Albert Museum.

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It gives force to the objections we have quoted to glance through the illustrations in this volume, for their general level is so good that in looking at them the mind receives something of the pleasure which a plain statement conveys over involved circumlocution. Plainness and service rules over-display. Of the furniture illustrated, that of P. Waals and Joseph Armitage is the best. We very much prefer the illustration of "English Oak Furniture" on page 32 to that facing it, which has still a rather "furnish throughout" look about it. The shop front dominates the workshop, and we feel that it is lacking in the more sincere qualities—not quite the furniture of good company. Is it that the heart is not quite in it and so we miss the treasure also, and that Tottenham Court-road is in it too much? The caskets of Harold Stabler show much executive facility but are somehow rather bald, a little lacking in "inwardness"; his mascot for the L.G.O.C. is capital. For its printing and lettering the D.I.A. deserve high praise; and the reproductions are on the whole so good that it would be invidious to point to any particular example. Their good influence in the direction of proper function, legibility and form in lettering can

hardly be over-estimated. There is much good pottery illustrated, the traditional buff-coloured ware for domestic purposes almost as good as any; pottery of real distinction by Messrs. Carter, Stabler, and Adams; other good examples by Josiah Wedgwood & Sons, Ltd., T. G. Green & Co., Ltd., William Adams, of Tunstall, etc.

Though the D.I.A. is so right in its general principles it is not always able to extricate itself from unnecessary ornament, so deep-seated is the vice. How much better would "The Casement Window" (p. 91) have been without the unnecessary breaking-out of the top lights into "ornamental" leading. Instead of being any improvement, it gives the impression of a blunder in the measurements overcome by adding this rather ugly addition to the plain squares, and is accounted for as a survival of that detestable legacy of villadom, with its introduction of coloured glass into the tops of the windows, disfiguring the gracious light of the sky and darkening the room. The "Inlaid Sideboard" (p. 19) would really be better without the diagonal lines of inlay in the door panels, nor do we see any artistic gain in rounding the corners of the panels in the doors in "A Useful Piece of Furniture" (p. 21). The plain constructional shape left to itself in both cases would be much better. These are small matters in themselves, but they serve to illustrate what is so much forgotten, that applied ornament is not less difficult than design, that in fact it is easier to make a pot of good shape than to ornament it successfully. In most modern pottery there is a failure in the applied ornament, which even if growing out of the design and applied under right conditions is often weak and lacking in significance, because we find it much too easy, and do not attach the great importance of the ornament of a vessel being just right, and otherwise it is much better left out. Craftsmanship is not enough; and unless it includes vision as well as use, the spirit as well as the hand, it remains a lamed thing. To anyone concerned with the purchase of the things of domestic use, the services of the D.I.A. are invaluable, and we recommend this volume as of the greatest assistance in guiding their choice.

Chemistry of To-day. By P. G. BULL, M.A., Oxon. (London: Seeley, Service & Co., Ltd. Price 8s. 6d. net.)

THE educated man of to-day cannot afford to exist in ignorance of the general trend of scientific thought, and he should be familiar at least with the outlines of natural laws. To the man concerned in building a certain knowledge of chemistry and physics is desirable if not essential; the setting properties of cements, the formation of rust, electrolysis, capillary attraction, and the action of acids are but a few of the more obvious applications of these sciences to the science of building. The book before us might well have taken a more ambitious title, for it deals not merely with chemistry proper, nor does it confine itself within the borders of physical chemistry; but it contains chapters devoted to pure physics; it covers, in fact, practically all the elementary physics and chemistry that the average educated man can reasonably be expected to know. The book is written with the special object of avoiding all technicalities and formulæ (colloquialism being carried rather too far when we are told that "the size of molecules is infinitely small"), yet one cannot help feeling that anyone who has mastered its contents might be given the chance of acquainting himself with the general application of chemical formulæ and equations. The author is probably right in thinking that these, if embodied in the text, would frighten the layman, but one might suggest that, in future editions, an appendix explaining these principles, with a few instances, should be included. A chemical equation is, after all, only a convenient and concise way of making a statement, and we use a similar arrangement on the cricket field when we read that Nos. 2 and 5 are batting, Nos. 9 and 11 are bowling, and that No. 6 brought off the catch! The author may well contend that his work is accomplished when he has interested anyone sufficiently in the subject to make him want to proceed further, and this the author should certainly succeed in doing, for he has produced a work that can be recommended heartily to anyone who wishes to grasp the general principles of modern scientific research.

The Roadmender Country. By LORNA LEIGH, with sketches by DUNCAN MOUL. (London: The Homeland Association, Ltd. Price, 7s. 6d. net.)

THIS book will appeal to all lovers of "The Roadmender," written by Michael Fearless more than twenty years ago. It describes the corner of Sussex which she loved and immortalised, and records for the faithful where she died and was buried. The illustrations from pen sketches made on the spot are charming.

Iron-mounted Cupboard (14th Century) from Whalley Abbey, Lancashire, at the Victoria and Albert Museum.

"LONDON UNIQUE."

"O.B.I.T." writes as follows:—

SIR,—Continuing the line in regard to the above, in your issue of September 22, which described a suggested new artery in the western section, I would now direct attention to a similar suggestion in the eastern. It appeared first in January, 1908, as the second of a series of twenty-nine communications then being made to the London Traffic Branch of the Board of Trade, which was formed about that time, to continue the work begun by the Royal Commission on London Traffic.

There were some of the recommendations of that body to which exception was taken, and I suggested alternatives, of which the artery in question was one. Instead of the northern main artery following the line of Caledonian-road, and intersecting the one from east to west in the neighbourhood of Guildford-street, Gray's Inn-road, I proposed one from Smithfield, in a north-western direction, cutting across every main road to the north in its course, and thus opening up the most direct access possible from the City. Since then, I have elaborated, improved and extended the proposition, which may now be described as the City, "Welsh Harp," and Harrow section.

I consider the area for the most part as *carte blanche*, and what there is which must remain, such as the railway lines, &c., should be made the most of. That will be found to be borne out in my suggestions; whilst following the dictum of a master of the art that nothing ought to stand in the way of making London all that it might be or ought to be. But that, in the ultimate, can only be by a change in the circumstances as regards land tenure, as I have already repeatedly urged.

That, however, apart. The new artery to the north-west would take its rise from Smithfield, where it has been proposed that the new Civic Centre of London as a State should be situated. Its course would, in the first instance, be direct to Lloyd-square, where it would meet a new avenue to the south-west from the "Angel" to Russell-square. Around the former, it may be remarked in passing, is a large area which ought to be conserved for public purposes, and has been proposed as a site for London University or a like Institution. From Lloyd-square, Pentonville-hill would be crossed at St. James's Church; thence to York-road at Copenhagen-street and across the railway yard (at an elevation) to Camden Town and Kentish Town, where it would connect up with the series of roads already proposed in your columns. From that point, Haverstock-hill would be reached, and would form part, as far as Hampstead Town Hall. There, with the railways and vacant space at the spot, a town-planning feature would be arranged.

From that centre the new avenue would cut around the haunch of the hill; the first stage would be Fitzjohn-avenue, where a branch would proceed to Finchley-road on the line of the Midland Railway. Continuing, Arkwright-road at Frognal would be crossed and Frognal-lane at Langland-gardens. Through a cutting, Heath-road at Ferncroft-avenue would be reached. The latter would be used as a link until a parallel alternative became available. From the corner of Briarsdale-road and Platt's-lane, Patteson-road and Hermitage-lane would be crossed and the open reached. There the new avenue would bifurcate, one branch proceeding across Golder's-hill to the garden suburb and connecting up Hampstead-lane. The other would reach the Finchley-road at a suitable point beyond Child's-hill. Thence there is practically an open course to the Edgware-road at the "Welsh Harp." Skirting the northern branch of the Brent Reservoir and proceeding westward between the eminences, a practically level and unrestricted course through a lovely countryside would be found to Harrow-on-the-Hill.

Here, in this section, the day dream of a "Farm for London," remotely referred to in my last letter, may be realised. And now this communication may be considered the last of the series which has appeared in your columns, and of which I am inviting "interpretations."

BOOKS.

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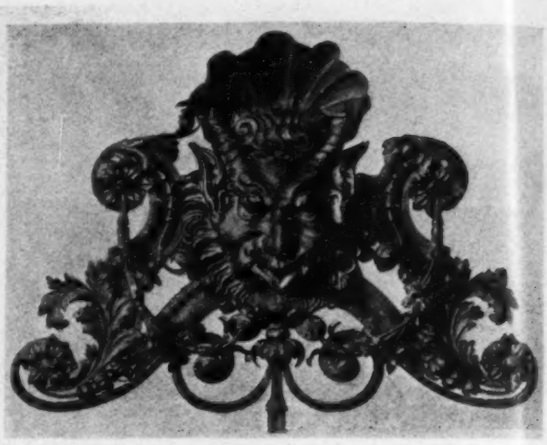

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Gate (about 1750) in the Victoria and Albert Museum.

Here is a paragraph from the prospectus of the D.I.A. which presents with buoyancy and humour its objections to the abuse of ornament and to bad design: "If you make a drawing-room chair with frail spindle legs, so that when any well-nourished person sits upon it a wave of apprehension lest he be let down overwhelms his hostess—that's a bad chair. If you cover the seat with velvet, surrounded by chenille tassels, and thereby make it so sticky that a man feels very much as if he were sitting on a fly-paper, while the housewife finds that nothing short of a serious operation will get the dust out of it—that also is a bad chair. If the manufacturer, thinking further to decorate it, weakens its back by fretwork or arranges a carved boss which sticks into the nape of an average neck, there you have bad, because entirely misapplied, art."

It gives force to the objections we have quoted to glance through the illustrations in this volume, for their general level is so good that in looking at them the mind receives something of the pleasure which a plain statement conveys over involved circumlocution. Plainness and service rules over-display. Of the furniture illustrated, that of P. Waals and Joseph Armitage is the best. We very much prefer the illustration of "English Oak Furniture" on page 32 to that facing it, which has still a rather "furnish throughout" look about it. The shop front dominates the workshop, and we feel that it is lacking in the more sincere qualities—not quite the furniture of good company. Is it that the heart is not quite in it and so we miss the treasure also, and that Tottenham Court-road is in it too much? The caskets of Harold Stabler show much executive facility but are somehow rather bald, a little lacking in "inwardness"; his mascot for the L.G.O.C. is capital. For its printing and lettering the D.I.A. deserve high praise; and the reproductions are on the whole so good that it would be invidious to point to any particular example. Their good influence in the direction of proper function, legibility and form in lettering can

hardly be over-estimated. There is much good pottery illustrated, the traditional buff-coloured ware for domestic purposes almost as good as any; pottery of real distinction by Messrs. Carter, Stabler, and Adams; other good examples by Josiah Wedgwood & Sons, Ltd., T. G. Green & Co., Ltd., William Adams, of Tunstall, etc.

Though the D.I.A. is so right in its general principles it is not always able to extricate itself from unnecessary ornament, so deep-seated is the vice. How much better would "The Casement Window" (p. 91) have been without the unnecessary breaking-out of the top lights into "ornamental" leading. Instead of being any improvement, it gives the impression of a blunder in the measurements overcome by adding this rather ugly addition to the plain squares, and is accounted for as a survival of that detestable legacy of villadom, with its introduction of coloured glass into the tops of the windows, disfiguring the gracious light of the sky and darkening the room. The "Inlaid Sideboard" (p. 19) would really be better without the diagonal lines of inlay in the door panels, nor do we see any artistic gain in rounding the corners of the panels in the doors in "A Useful Piece of Furniture" (p. 21). The plain constructional shape left to itself in both cases would be much better. These are small matters in themselves, but they serve to illustrate what is so much forgotten, that applied ornament is not less difficult than design, that in fact it is easier to make a pot of good shape than to ornament it successfully. In most modern pottery there is a failure in the applied ornament, which even if growing out of the design and applied under right conditions is often weak and lacking in significance, because we find it much too easy, and do not attach the great importance of the ornament of a vessel being just right, and otherwise it is much better left out. Craftsmanship is not enough; and unless it includes vision as well as use, the spirit as well as the hand, it remains a lamed thing. To anyone concerned with the purchase of the things of domestic use, the services of the D.I.A. are invaluable, and we recommend this volume as of the greatest assistance in guiding their choice.

Chemistry of To-day. By P. G. BULL, M.A., Oxon. (London: Seeley, Service & Co., Ltd. Price 8s. 6d. net.)

THE educated man of to-day cannot afford to exist in ignorance of the general trend of scientific thought, and he should be familiar at least with the outlines of natural laws. To the man concerned in building a certain knowledge of chemistry and physics is desirable if not essential; the setting properties of cements, the formation of rust, electrolysis, capillary attraction, and the action of acids are but a few of the more obvious applications of these sciences to the science of building. The book before us might well have taken a more ambitious title, for it deals not merely with chemistry proper, nor does it confine itself within the borders of physical chemistry; but it contains chapters devoted to pure physics; it covers, in fact, practically all the elementary physics and chemistry that the average educated man can reasonably be expected to know. The book is written with the special object of avoiding all technicalities and formulæ (colloquialism being carried rather too far when we are told that "the size of molecules is infinitely small"), yet one cannot help feeling that anyone who has mastered its contents might be given the chance of acquainting himself with the general application of chemical formulæ and equations. The author is probably right in thinking that these, if embodied in the text, would frighten the layman, but one might suggest that, in future editions, an appendix explaining these principles, with a few instances, should be included. A chemical equation is, after all, only a convenient and concise way of making a statement, and we use a similar arrangement on the cricket field when we read that Nos. 2 and 5 are batting, Nos. 9 and 11 are bowling, and that No. 6 brought off the catch! The author may well contend that his work is accomplished when he has interested anyone sufficiently in the subject to make him want to proceed further, and this the author should certainly succeed in doing, for he has produced a work that can be recommended heartily to anyone who wishes to grasp the general principles of modern scientific research.

The Roadmender Country. By LORNA LEIGH, with sketches by DUNCAN MOUL. (London: The Homeland Association, Ltd. Price, 7s. 6d. net.)

THIS book will appeal to all lovers of "The Roadmender," written by Michael Fearless more than twenty years ago. It describes the corner of Sussex which she loved and immortalised, and records for the faithful where she died and was buried. The illustrations from pen sketches made on the spot are charming.

Iron-mounted Cupboard (14th Century) from Whalley Abbey, Lancashire, at the Victoria and Albert Museum.

"LONDON UNIQUE."

"O.B.I.T." writes as follows:—

SIR,—Continuing the line in regard to the above, in your issue of September 22, which described a suggested new artery in the western section, I would now direct attention to a similar suggestion in the eastern. It appeared first in January, 1908, as the second of a series of twenty-nine communications then being made to the London Traffic Branch of the Board of Trade, which was formed about that time, to continue the work begun by the Royal Commission on London Traffic.

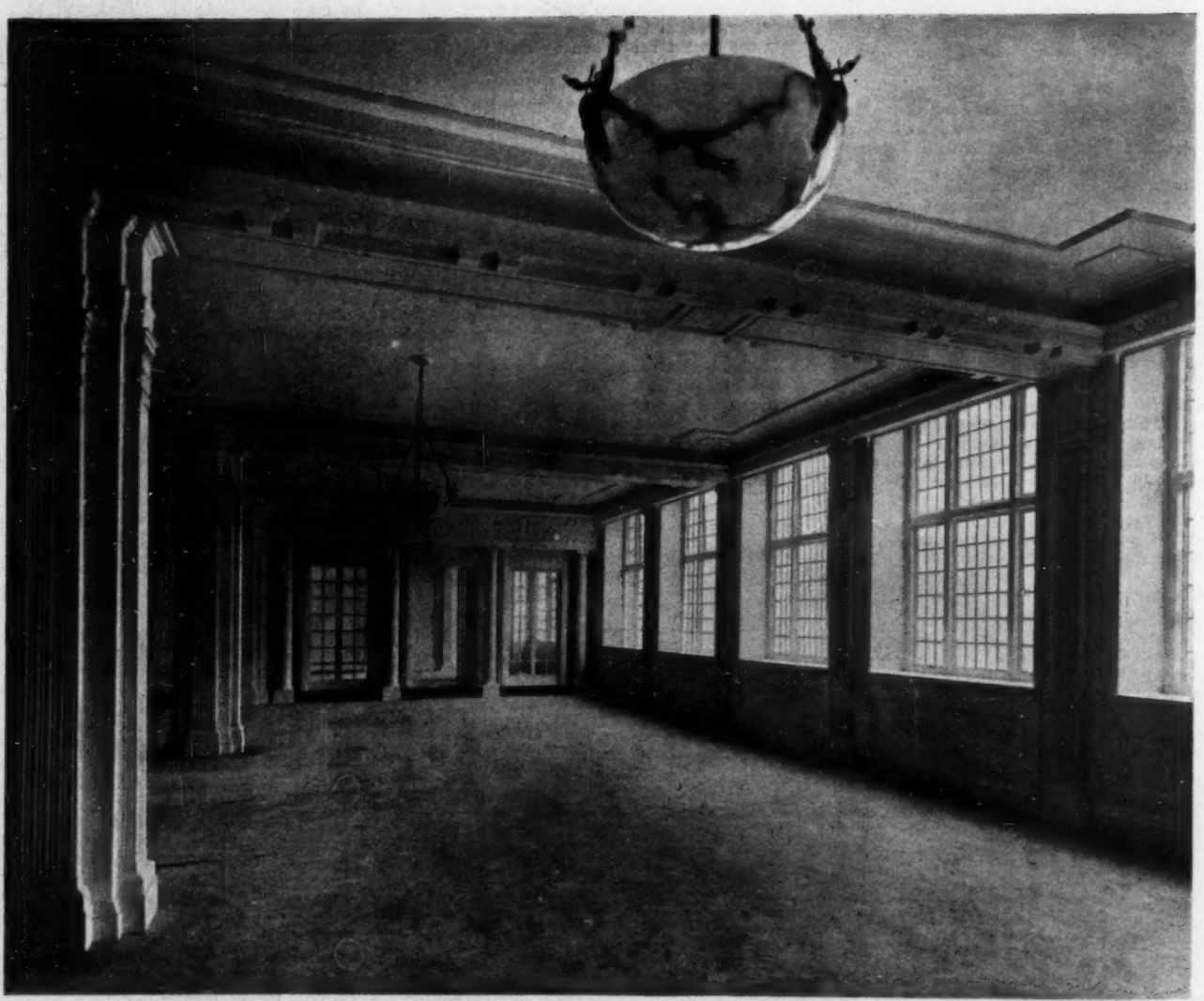
There were some of the recommendations of that body to which exception was taken, and I suggested alternatives, of which the artery in question was one. Instead of the northern main artery following the line of Caledonian-road, and intersecting the one from east to west in the neighbourhood of Guildford-street, Gray's Inn-road, I proposed one from Smithfield, in a north-western direction, cutting across every main road to the north in its course, and thus opening up the most direct access possible from the City. Since then, I have elaborated, improved and extended the proposition, which may now be described as the City, "Welsh Harp," and Harrow section.

I consider the area for the most part as *carte blanche*, and what there is which must remain, such as the railway lines, &c., should be made the most of. That will be found to be borne out in my suggestions; whilst following the dictum of a master of the art that nothing ought to stand in the way of making London all that it might be or ought to be. But that, in the ultimate, can only be by a change in the circumstances as regards land tenure, as I have already repeatedly urged.

That, however, apart. The new artery to the north-west would take its rise from Smithfield, where it has been proposed that the new Civic Centre of London as a State should be situated. Its course would, in the first instance, be direct to Lloyd-square, where it would meet a new avenue to the south-west from the "Angel" to Russell-square. Around the former, it may be remarked in passing, is a large area which ought to be conserved for public purposes, and has been proposed as a site for London University or a like Institution. From Lloyd-square, Pentonville-hill would be crossed at St. James's Church; thence to York-road at Copenhagen-street and across the railway yard (at an elevation) to Camden Town and Kentish Town, where it would connect up with the series of roads already proposed in your columns. From that point, Haverstock-hill would be reached, and would form part, as far as Hampstead Town Hall. There, with the railways and vacant space at the spot, a town-planning feature would be arranged.

From that centre the new avenue would cut around the haunch of the hill; the first stage would be Fitzjohn-avenue, where a branch would proceed to Finchley-road on the line of the Midland Railway. Continuing, Arkwright-road at Frognal would be crossed and Frognal-lane at Langland-gardens. Through a cutting, Heath-road at Ferncroft-avenue would be reached. The latter would be used as a link until a parallel alternative became available. From the corner of Briarsdale-road and Platt's-lane, Patteson-road and Hermitage-lane would be crossed and the open reached. There the new avenue would bifurcate, one branch proceeding across Golder's-hill to the garden suburb and connecting up Hampstead-lane. The other would reach the Finchley-road at a suitable point beyond Child's-hill. Thence there is practically an open course to the Edgware-road at the "Welsh Harp." Skirting the northern branch of the Brent Reservoir and proceeding westward between the eminences, a practically level and unrestricted course through a lovely countryside would be found to Harrow-on-the-Hill.

Here, in this section, the day dream of a "Farm for London," remotely referred to in my last letter, may be realised. And now this communication may be considered the last of the series which has appeared in your columns, and of which I am inviting "interpretations."



New Music Rooms, Tottenham Court-road. MR. W. H. WHITE, F.R.I.B.A., and MR. THEO. H. WHITE, Architects.

Extensions to their premises have just been completed by Messrs. Oetzmann & Co., Ltd., in Tottenham Court-road. We illustrate the firm's new music rooms, the structural and decorative work of which has been carried out under the supervision of the architects, Mr. W. H. White, F.R.I.B.A., and Mr. Theo. H. White. The piano room (illustrated above) has pillars of Neo-Grecian character and walls of antique ivory enamel. Behind the ornamental partition screen is the gramophone showroom, and adjoining, the sound-proof audition room.

MEDIÆVAL STAINED GLASS.

A PARTY of members of Society of Glass Technology visited York recently. In the morning the party paid a visit to the Yorkshire Museum, where they inspected the Roman remains and Roman glass and other objects of interest. The party afterwards inspected the windows of the Minster, and the Dean of York explained the work of preservation which is in progress, and the methods employed for preserving the stained glass.

The afternoon meeting was presided over by the President of the Society, Professor W. E. S. Turner, D.Sc., of the University of Sheffield.

Mr. John A. Knowles (York) delivered a lecture on "Processes and Methods of Mediæval Glass Painting," in the course of which he said mediæval window glass differed from modern in the fact that the ancient was a potassium-calcium-silicate where the alkali was obtained by lixivating the ashes of plants and other vegetation and evaporating the mixture; hence the word "pot-ashes," whence was derived the modern term "potash." Modern glass, on the other hand, was a soda-lime glass. Whereas all modern window glass, whether employed in houses or churches (except such as was cast or rolled) was formed by the "muff" process, where a cylinder of glass was split down the side and opened out into a flat sheet, old glass was made both by the "crown" and "muff" process. Crown glass was made in a circular sheet, with a knob of glass in the middle like the foot of a wine glass, which was nothing more than a miniature crown sheet. Squares, with the knob of glass where the sheet was attached to the "punty" or "pontil" were frequently to be seen in the windows of old houses. They had been used in the tracery pieces of the windows of the north clerestory windows in St. Martin-le-Grand, Coney-street, York. Mediæval crown sheets, according to M. Appert, measured 60 or 70 cm. At York they seemed to have averaged 24 in. in diameter.

Practically all the glass used for painting windows was imported. The northern school of glass-painting situated at York drew its glass from the nearest source, the northern Continental glass-making districts of Hesse and other Rhenish provinces. The London school drew its glass from Lorraine, Burgundy, and Normandy. There was a great difference between the two. The uncoloured glass used in the north was much whiter than that employed in the south. Probably there was more English-made white glass used there, derived from the glass works at Chiddingfold. The greenish tint in glass was due to a small content of iron in the sand used for glass making, which was removed by the use of manganese dioxide.

It was frequently stated that there were no colours to equal the colours to be seen in old windows. The idea was quite erroneous. The present-day glass maker and scientist could produce colours with a certainty and in a far greater range of tints than ever the mediæval craftsmen could. With the exception of the red or "ruby" glass, the mediæval coloured glasses were those which were most easily produced. Being made from native oxides which contained, in the form of impurities, other metals, each of which slightly imparted its own tint to the glass, the resulting colours were not pure but slightly secondary; hence they always harmonised with each other. Since natural ores were cheaper than pure chemicals and easily produced colours less expensive to make than difficult ones, the exact counterpart of the coloured glasses used in mediæval windows were to be met with every day in the modern cheap bottle ware.

Examples of actual pieces of fourteenth-century blues, greens, and yellows placed side by side with pieces of glass similarly painted but cut from the sides of modern bottles were exhibited. It was impossible to detect which was ancient and which modern, the colours, bubbles, and other characteristics being identical.

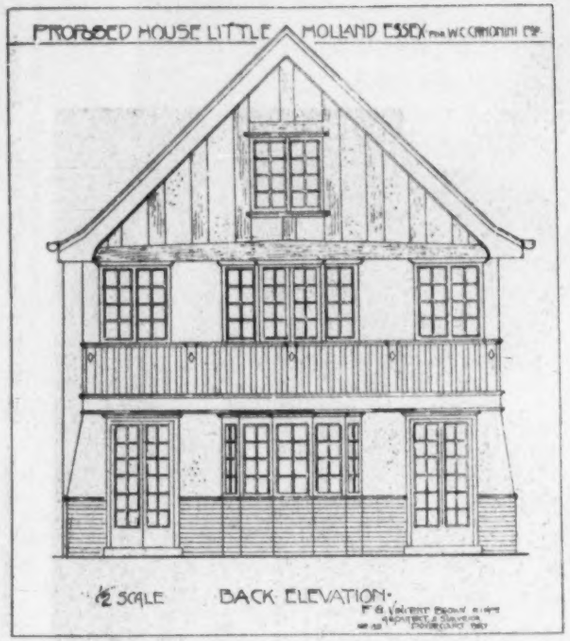
Coloured glasses were formerly each named after the particular precious stone which they resembled, but the red glass called ruby was the only one which had preserved its fine title. It was extraordinary that the mediæval glass makers jumped, as it were, at once to this difficult colour, and, from a glass-painter's point of view, made it more perfectly at first than at any subsequent period. There were two oxides of copper, the cupric and the cuprous. The first communicated a green tint to glass and the latter gave the deep red colour. The difficulty consisted in that the cuprous oxide was very liable to pass over to the cupric condition by the absorption of oxygen, when the red tint was lost and the glass became green. In order to overcome this, not only must all oxydising substances be kept out of the batch, but strong reducing agents must be employed. The mediæval glass-makers, with their smoky furnaces and consequent reducing atmosphere, had therefore conditions for the production of ruby in their favour. The art of making that tint was lost about the end of the seventeenth century, and afterwards revived. The secret was known in 1720, but again lost until the year 1826. What actually seemed to have been lost was not so much the art of making the red as the method of "flashing," *i.e.*, forming a thin film of coloured glass on the top of a thick colourless base, which was done by dipping the end of the blowpipe first in the coloured glass and then in the white and blowing the two together. For this William Peckitt, the glass-painter of York (1735–1795), took out a patent in 1780. Another York glass painter, John Barnett, evidently made ruby, for there was a piece of ruby glass in one of the windows of St. Michael's, Spurriergate, York, with the name "J. Barnett," and the date, "1820," engraved on it. It was possible, however, that Barnett's ruby would not stand being fired in the glass-painter's kiln and so was useless for painting on.

The colours such as red, blue and green were contained in the glass itself, but details such as the face, folds of drapery, and ornamental work had to be painted on with a brown vitrifiable pigment, formed of a metallic oxide such as red oxide of iron or black oxide of copper, which was mixed with a soft glass known as "flux." In the kiln the flux melted at a lower heat than would be required to melt the glass itself, and attached the black oxide to the surface of the glass, just as size holds the whiting to the ceiling. A twelfth-century recipe for this pigment instructed the use of copper oxide, green glass and "Greek sapphire," *i.e.*, blue carbonate of copper. Green glass was employed as the flux, because it was evidently a copper green and melted at a lower heat than the other colours. At a later date the flux which was used was called "jet." This, too, had proved a mystery until Mr. Noel Heaton showed that "jet" was an artificial substance formed of black glass of a highly fusible nature.

Glass in which manganese dioxide had been used as a decolouriser frequently changed its colour, both whilst the metal was being founded and after the glass was made. The mediæval glass-making furnace was a smoky affair, which gave a reducing atmosphere, causing the manganese to part with a portion of its oxygen. In the lower state of oxidation manganese imparted no colour to glass, but the mediæval glass-maker was ignorant of the means to overcome this. He, therefore, worked off as much of the metal as he could before it lost its colour, and saved this for the heads and other flesh tints. This probably accounted for the fact that, in the Chapter House windows at York, whilst some of the heads were coloured others were white. No doubt the demand for flesh-tinted glass due to the increased size and number of windows being done during the fourteenth century was more than the supply, when the production depended upon accident, so that eventually the use of flesh-tinted glass had to be entirely abandoned and white used.

At the present time much stir was being made over the subject of the decay of ancient glass. It was, however, no new thing, but was noticed as long ago as Roman times. The glass at York, particularly that of the fourteenth century, was very liable to corrode. Corrosion, however, was not a sign of age. Modern articles of glass ware, such as bottles, frequently showed pitting in an advanced stage of formation. The cause of pitting and corrosion was nowadays well understood. There was, of course, no cure for it, as it was entirely due to bad glass-making, the deficiency of silica, excess of alkali and bad founding of the metal.

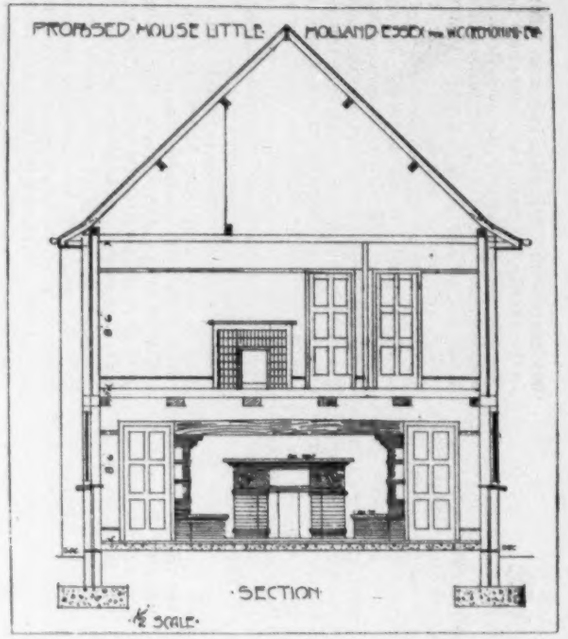
War Memorial, Drayton, Somerset. MR. H. M. FLETCHER, F.R.I.B.A., Architect.
[Shown at the R.I.B.A. Exhibition of Contemporary Architecture. *See p.* 863.]

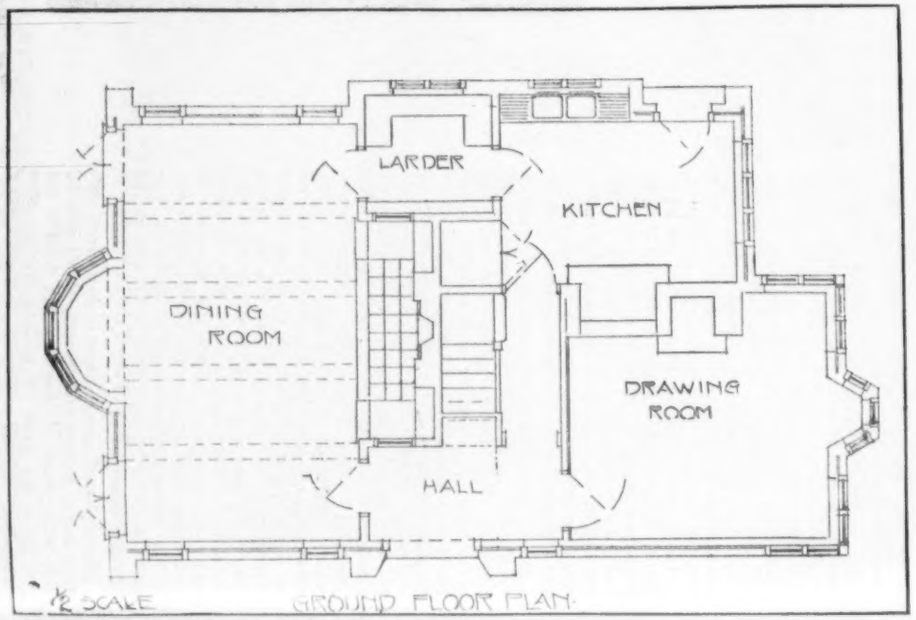


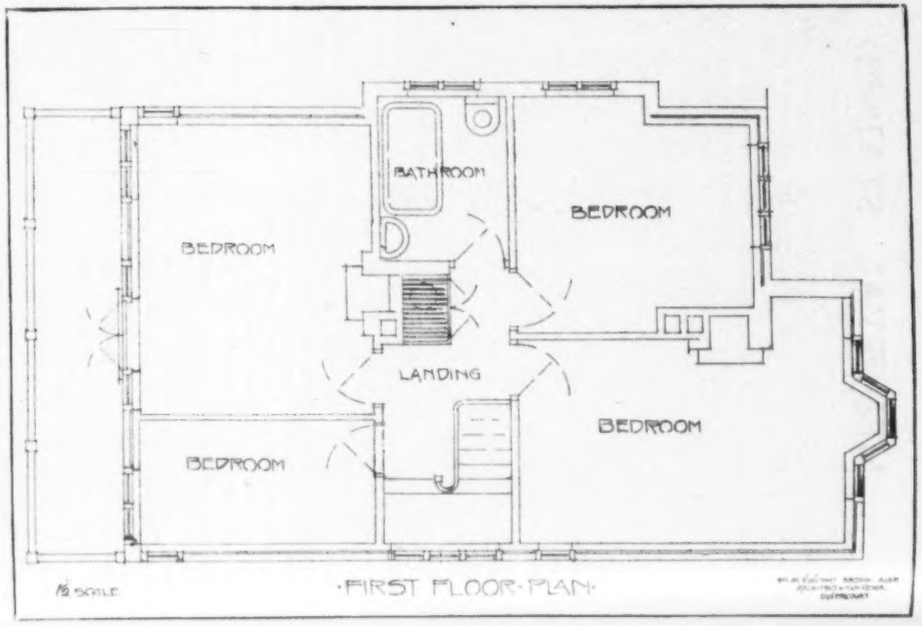
HOUSE ON THE KINGSCLIFF ESTATE, LITTLE HOLLAND, NR. CLACTON-ON-SEA.

MR. F. G. VINCENT-BROWN, Architect.

[This house is now being built by Mr. W.C. Cremonini of Little Holland.]







THE ART OF STAINED GLASS.

AT the request of the Selborne Society Mr. Reginald Hallward gave an address on "Stained Glass" in his studio at Ealing recently. In the course of his remarks he pointed out that stained glass was both a craft and an art; the craft side of such an art was more easily learned, but it was not enough, and the over-emphasis of this side tended to obscure the real issues. He thought that people tended to look too much to the means rather than the end. This was a pity, as a national character could only be possible for art when people, as a whole, understood and acknowledged its intrinsic character. It was the least part of art that could be learned, and there were many craftsmen but few artists! He then described in detail the processes of stained glass window making: first, the design—a very important part, and ill-described as a "sketch"—and then the cartoon—itself a means to an end only, on which alone no adequate judgment of the final result could be properly formed. The cartoon, in the right interpretation of a stained glass window, was to assist the artist, not as his master but as an aid to the further interpretation which translation into glass treatment required. It was for this reason that when handed over to assistants to copy, it arrested realisation instead of furthering it, and it was due to this that windows which had not the first-hand interpretation of the artist retained a rather complexionless result. It was important not to yield to what sometimes became a demand by the client for plenty of colour. It was the right distribution and relation of colour that determined its beauty more than the amount of it. The mediæval designers appreciated this and were careful not to overload their windows too much. The lecturer denied that the early stained glass workers had any secrets unknown to us now. Our technical resources were greater. As a result of the progress of science, glasses were perhaps more beautiful now than they ever had been. What mattered was the way they were used, and for a defective appreciation they were all the greater peril. There were no secrets on the side of technical approach, but there was always the incommunicable secret of the artist. In ancient days, the "mystery" of art was often referred to and used as a title, and we need to be reminded of it at a time when there is so much facility for craft knowledge. One had to look not to the resources of the material but the resources of the man.

With regard to the actual painting and leading of the glass, he made it clear that neither of these should be in the least mechanical. There was treatment in leading as in the painting and if the leading was handed over as a mechanical thing the beauty of a window would be destroyed; that was why, if we wished to produce a good window, the artist must do most of the work himself, for in handing it over to others for reproduction or delegating too much of his own work, he lowered its character as a work of art and therefore its value. The delightful quality of accident, so typical of mediæval work, could only be obtained in this way. It needed both time and labour to make a good window; we were more likely to get this through the development of small art industries employing the personal craftsman, all through the country, than through large firms. With the improved training at the art schools and a better appreciation by the public of the nature of art, it ought to be possible for the men and women turned out from the schools to start either individually or by co-operating together. The interests of beauty lie in this direction, in directing employment into the hands of men and women, who were more likely to give us vital and beautiful work than the larger organisations at present absorbing so much of the work. But we must approach this change in the right spirit. Art would return a living for a man, but if he wanted a fortune let him keep out of it.

The lecturer concluded by saying he felt that the Selborne Society, by their interest in, and love for, nature, were doing much to provide that ameliorating influence which made beauty possible. Art, he said, must relate itself to its own time and learn to speak its language. He thought that the almost entire separation from the true spirit of art, which must first of all be free, materially helped to empty our churches. At the conclusion of the address the visitors examined the many examples of glass and pottery and other work on view in Mr. Hallward's studio.

IDEAL CITIES.

IN the eighth of his series of lectures on Town-Planning, at Birmingham University, Mr. Wm. Haywood dealt with "Ideal Cities."

Ideas of that class were, he said, not new. Even omitting those of the ancient world, there were More and Campanella in the sixteenth century; Andreae and Swift, in the seventeenth and eighteenth centuries; and Bellamy, Butler and Morris, in the nineteenth century—all writing of Utopias. Robert Owen, in 1818, bought 1,200 acres of land and actually began an ideal village, but accomplished little of importance; and in 1848, James S. Buckingham published a remarkable scheme for a small model city, which was curiously like that for an imaginary "Christianopolis," published in 1619 by Andreae, except for certain natural differences due to two centuries of change.

Sir Titus Salt carried to completion a notable experiment when he built Saltaire, in 1853; but it was with the work of practical idealists like the late George Cadbury and Lord Leverhulme (whose ideas materialised in 1887-8), that the first practical results of earlier speculations and trials were carried to a really convincing conclusion. That was especially true of Bournville, which avoided the somewhat institutional character of Port Sunlight, and displayed the free and untrammelled conditions under which it was conceived—conditions happily embodied in the design of the buildings and in the method of their arrangement.

Those and similar "garden suburbs" were often described as "garden cities," or as of a "garden city" character, but it was important to remember that such suburbs were essentially unlike the fully-detached and self-sustaining town of Letchworth, or that of Welwyn, now building, to which communities alone the term "garden city" was properly applied. The Letchworth type of town differed from all others by its adoption of Mr. Ebenezer Howard's teaching: (1) That all communities should own the land upon which they stood in order to avoid the exploitation of land values; (2) that the size of a city should be strictly limited to something under 50,000 (Letchworth was to be 30,000); and (3) that it should be surrounded in perpetuity by a belt of agricultural land for health purposes and for the mutual convenience of the grower and buyer of market produce. Letchworth, which was commenced in 1903, made no special contribution to town-planning knowledge, but in policy and administration it was unique as the first experiment in a new form of town control.

Cinematograph Theatres.

Messrs. Dixon & Steinlet, of North Shields, were the architects who prepared the plans for the Abbeydale Cinema, Sheffield, and Mr. Arthur Whitaker was the superintending architect during the carrying out of works.

Owing to an error the two illustrations on page 770 of our issue of November 24 were described as details of frieze at "La Bohème" Ball Rooms, Mile End-road; these related to the frieze at the Ilford Super-Cinema, the architect for which was Mr. W. E. Trent. The decorations were carried out by the Val Prince Decorations, Ltd.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

AT a meeting of the Birmingham Architectural Association held on Friday last week, to which the members of the Birmingham Institute of Civil Engineers were invited, Mr. H. Jackson, A.M.I.C.E., A.M.I.M.E., read a paper in which he discussed the stresses in some important building structures and their transference to the ground.

It was, he said, impossible to draw a hard-and-fast line of distinction between those structures which might be called architectural and those called engineering. The former must of necessity comply with the laws of statics to be possible, while the latter, if they were to be pleasing as well as useful, must not offend architectural good taste. When, however, structures verged on the border line of the untried, when new and daring conceptions were anticipated, the co-operation of the two special branches of knowledge became desirable, and that joint meeting of their Associations was an endeavour to foster that spirit of co-operation. They had to live by their profession, and if part of an architect's fees were to go in paying for an engineer's co-operation, so as to save his client expense, and at the same time reduce the sum total of his own fees, he had little inducement to seek co-operation.

The first building Mr. Jackson discussed was the Roman Catholic Cathedral at Westminster. He showed several drawings and lantern slides, illustrating the construction of the dome and its supports, and also showed, by means of a small model, how the horizontal force necessary to prevent the bursting of the dome was supplied by the supports. Passing to the question of the foundations, Mr. Jackson said that uniform stressing of foundations was necessary if local sinking was to be avoided, and instanced the case of St. Paul's Cathedral, in which serious sinkings due to the uneven distribution of loads had taken place.

The second building the lecturer referred to was Liverpool Cathedral, in illustration of which he exhibited a blue print showing the plan of what is nominally the east-end, and an original drawing showing sections, which, he said, Mr. Gilbert Scott had kindly lent him. Lastly, Mr. Jackson discussed the roof of Westminster Hall and showed a lantern slide of a model of the truss illustrating the way in which the walls had been forced inwards.

At the conclusion of the paper a vote of thanks to the lecturer was proposed by Mr. C. S. Madeley, A.R.I.B.A., and seconded by Mr. J. B. Surman, A.R.I.B.A., and a discussion took place on the desirability or otherwise of introducing tension-resisting members into buildings of a monumental character.

Christmas Appeal.

A Christmas appeal is being issued by the St. Giles' Christian Mission. Mr. William Wheatley, the Superintendent, is asking for funds to enable him to give gifts to poor children. He also asks for money for Christmas dinners for destitute but deserving families, and for a number of aged lonely widows. Mr. Wheatley's office is at 4, Ampton-street, Regent-square, W.C.1.

Manchester Society of Architects.

We find that one of the concluding passages in the report in our last issue of the paper on "English Architecture," read by Major H. C. Corlette at the meeting of the Manchester Society of Architects, is capable of misinterpretation. The passage in question should have read: "The mistakes we make in making them were nearly always over-statement, prolixity of thought, confusion of idea, and ungrammatical expression," and not "The mistakes they made," &c.

HOUSING POLICY.

At a meeting of the Kensington Council of Social Service, held at Aubrey House, Campden Hill, recently Major C. P. Lovelock, M.B.E., V.D., treasurer of the National Housing and Town Planning Council, read a paper on "Housing Policy," in the course of which he said there was an impression that the shortage of working-class houses was entirely caused by the war, which was far from being the case. For years before the war the building of small houses had almost stopped, mainly owing to the fact that that class of property had ceased to be profitable. When, therefore, the Government's housing policy had been settled, an artificial position had been created—wages were enormous, workers were not producing anything like the normal output, and houses cost £1,300 which formerly would have cost £300. When the Local Government Board were told to build houses it could not be done without Government assistance, and it was agreed under the Housing Act of 1919 that all loss over the sum produced by a rate of one penny in the £ should be paid from the Exchequer. The estimated requirements were 500,000 houses, but up to the present only 200,000 had been provided.

It had been said that a time had arrived when the building of houses for the working classes might be left to private enterprise, but he considered that a fallacy, as even at the present reduced prices and rates of interest it was impossible to build such houses without a considerable loss and there would be no profit for some time to come. It would have to be made clear to the Government that, while there were builders' men unemployed, the public would prefer to pay for the building of houses rather than for giving demoralising and unproductive doles. No stone should be left unturned to find a suitable financial basis, and then go forward with a scheme which should provide the balance of the accepted need of houses, in which every family could cultivate the home life which alone would give stability to the nation. In Kensington it was not so much a new policy which was needed as a strict application of the existing by-laws with respect to health and the amenities of the buildings. The houses had been permitted to get into a state of disrepair, which made them unfit for human habitation, and the figures revealed a terribly congested condition. Any attempt to lessen overcrowding would necessitate many families being provided for elsewhere, which would make imperative a further extension of the scheme for the provision of dwellings by means of Government help.

A resolution was passed, calling the attention of the Minister of Health to the overcrowding conditions in North Kensington, and calling upon the Borough Council to put into force all their available powers to have the existing houses put into a proper state of repair.

The chair was taken by Mr. F. M. Elgood, O.B.E., chairman of the National Housing and Town-Planning Council.

HOUSING AND TOWN-PLANNING NOTES.

Housing Shortage.

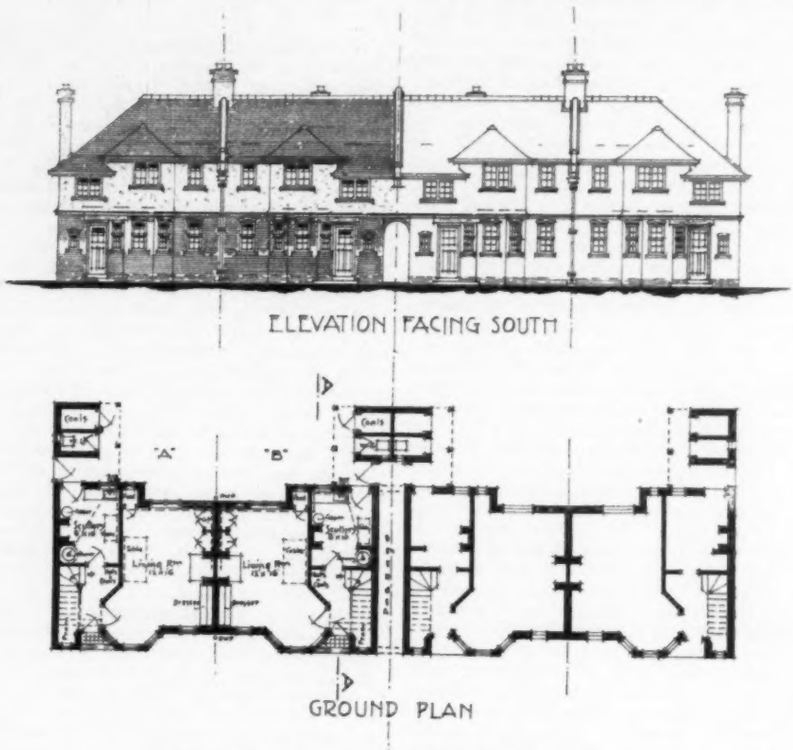
At a recent meeting of the Kensington Borough Council, Councillor W. H. Raffles moved: "That in view of the very unsatisfactory state of affairs—in connection with the 'tenement house' evil in this borough—which is clearly shown to exist by the Medical Officer of Health in his report for the year 1921, the Public Health Committee be directed to consider and report forthwith as to whether any scheme can be put into force to deal more adequately with the many ills which are the result of the 'tenement house' system." The resolution was carried.

The College of Estate Management.

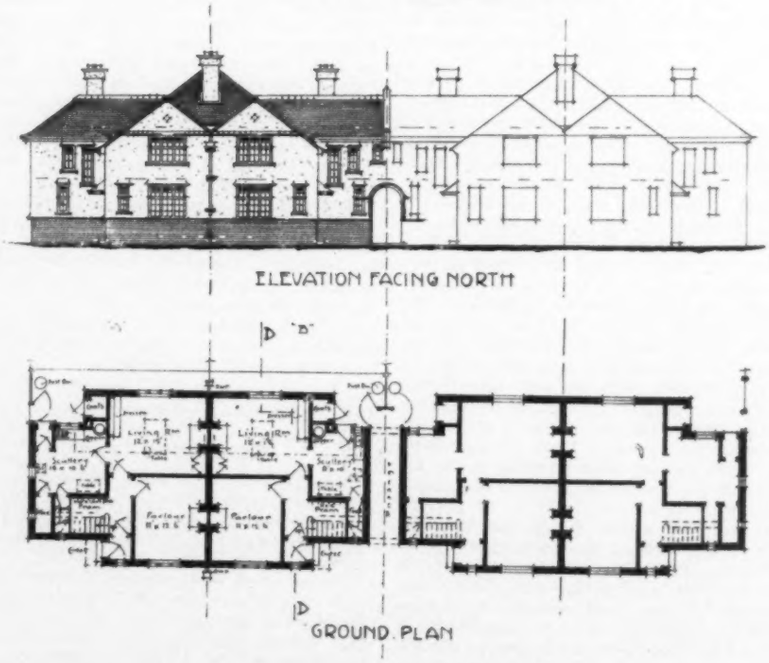
Mr. Blake gave his concluding lecture on "Domestic Sanitation" at the College recently, taking as his subject "Sanitary Surveys and Reports." He emphasised the importance of system and thoroughness in the survey and gave useful advice as to the best method of procedure. The recommendations suggested by the survey should, he thought, be considered on the spot and briefly recorded in the survey note book. If left until a more convenient season after the surveyor's return to his office, there was more risk of impracticable suggestions being made. Dealing with drain testing, Mr. Blake expressed his strong preference for the water test. A drain too old to stand this test, was, in his opinion, too old to be good for the health of the occupants of the house it served.

WORKING-CLASS DWELLINGS.

The following designs were submitted in a recent competition by Mr. A. Benson, of 25, Bracken-avenue, S.W.12: *Class 1, Cottages for Unskilled Labourers*—The first-floor quarters have three bedrooms, with cupboards in each room; the shower bath is provided in scullery on ground floor. *Class 2, Cottages for Skilled Artisans*—The bedrooms, &c., on first floor are similar to Class 1 cottages, but with the addition of bathroom, lavatory and w.c. The materials suggested were tiled roofs, brick throughout, with rough cast externally and plastered internally.



Class 1.—Cottages for Unskilled Labourers.



Class 2.—Cottages for Skilled Artisans.
Designs by Mr. A. Benson.

THE WEEK IN PARLIAMENT.

WESTMINSTER, *Wednesday.*

Government's Housing Policy.

Mr. Inskip (the Solicitor-General) outlined the Government's housing policy. The conditions of housing in our large cities, he said, could only be viewed by anyone aware of them with the most profound misgivings, and he believed that there was a universal desire for a change. The great experiment of four years ago was launched with great energy and enthusiasm. There was reckless expenditure by the State and municipalities, but the result of the enormous outlay of public money was a comparatively inadequate return in houses, only about 200,000 being produced. The State, by this scheme, had been committed to an expenditure of something like £9,000,000 a year for the next sixty years. While the State scheme at that time held the field, private enterprise took a back place. But the Government's scheme did not solve the problem, and it was brought to an end in June of this year, with the result that the total number of houses that would be provided under the schemes was just over 215,000, which with another 3,000 dwellings that had been provided by the conversion of huts and hostels would make something like 220,000 dwellings. At present 188,000 houses had been actually completed, or had been completed on November 1. Of the 176,000 houses to which the local authority and public utility schemes were limited, 11,000 had not yet been begun and work was proceeding on 118,000, so that there were something over 30,000 houses on which work still remained to be done.

The only statement which the Government could make at present was that houses could, in their opinion, be more advantageously provided by those whose business it was to build houses than by the State. The Government was most anxious that private enterprise which, when all was said and done, had provided large numbers of houses in the past, should be encouraged to develop its great resources. The considerations which the Government would give to the problem would be along those lines. They would consider whether any action on their part, including possibly the extension of existing provisions under which private builders could borrow money at reasonable rates, would assist in that direction. There were already signs of a revival in private enterprise in building. Local authorities were showing a readiness to undertake building without State aid. Thirty-five local authorities had already undertaken to build houses without State assistance, and another sixty were considering proceeding on those lines.

One thing was quite certain in the view of the Government. It was that the continuation of the present system, under which the liability of the local authorities was fixed at a penny rate, while the Government contribution was unlimited, could not be contemplated. Whether any scheme under which the Government was to provide financial assistance would offer better hope still remained for consideration. The failure of the State scheme was largely due to the enormous cost of building. That cost had fallen very considerably, and the last tenders received for a three-roomed house were for £297 each. That began to approach an economic level. The desire of the present Government was to carry out and extend the policy of the late Minister of Health, which was to assist local authorities in providing houses into which to put the population of slums. The Government would do all possible to enforce the powers of local authorities to acquire slum areas and to clear them. The Government had undertaken to provide a sum which at present was not to exceed £200,000 every year towards the deficiencies of local authorities in slum areas.

A debate on housing took place in the House of Lords on Monday, but no further statement of policy was made.

Rent Restriction Act.

The Prime Minister, replying to Sir C. Warner, who asked what decision the Government had come to in regard to the decision of the House of Lords on the Rent Restriction Act, said that a small Cabinet Committee had been appointed to investigate the subject, but it was impossible that their report would be ready in time to deal with the matter this session.

Unemployed Operatives.

Sir Montague Barlow, Minister of Labour, replying to Mr. T. Thomson, said that the number of unemployed building operatives on October 23, 1922, as shown by unemployment books lodged at Employment Exchanges, was 118,739. It was estimated that for the four pay-weeks falling within the month of October, these persons received about £250,000 in benefit. The full particulars were:—Carpenters, 11,785; bricklayers, 5,200; masons, 1,773; slaters, 471; plasterers, 1,564; painters, 18,840; plumbers, 3,564; other skilled trades and labourers, 75,522. —Total, 118,739.

Houses Completed.

Major Boyd Carpenter informed Mr. T. Thomson that 145,771 houses had been completed by local authorities and public utility societies on November 1, and 39,145 houses had been completed at that date by private builders under the Housing (Additional Powers) Act, 1919, making a total of 184,916 houses completed. In addition, 3,056 dwellings had been provided by the conversion of huts and hostels; 30,229 houses remained to be completed, and of these 18,847 were in course of construction on November 1 by local authorities and public utility societies.

Mr. Daniel Somerville asked whether the whole of the subsidies under the original housing scheme had now been allocated; what was the number of houses completed under that scheme; whether there was any avoidable delay in completion; what was the lowest tender received for subsidised construction; and whether the level of economic building had now been reached.

Major Boyd Carpenter said that of the 176,000 houses to which the scheme was limited, 175,400 had been definitely allocated, and 546 provisionally allocated. In addition 39,145 houses had been provided with the aid of the Private Builders' Subsidy. On November 1 last 145,771 houses had been completed. He was not aware at the present time of any general avoidable delay in the completion of houses for which contracts had been let. The lowest price for a house complete with drains, paths, fences and gas and hot-water installation was £297 10s. On the information before him there was no reason to believe that the cost of building would not continue to fall.

Sites for Local Authorities.

Mr. Collison asked the Minister of Labour, as representing the Ministry of Health, whether he could see his way to hand over to local authorities sites required for housing purposes in order to stimulate the building trade, to decrease unemployment, and supply the need for houses.

Major Boyd Carpenter replied that local authorities had in several cases taken over land acquired under the Assisted Housing Scheme for building purposes at the present market value and such land had also been disposed of on similar terms to private persons undertaking building. The Ministry of Health was anxious to encourage such arrangements so far as possible.

Foreign Tiles.

Asked by Sir Bertram Falle whether he was aware that a number of local authorities had made use of imported tiles in the erection of houses built under the assisted housing scheme; and whether, in view of the unemployment in the tile manufacturing trade, he could take steps to ensure that the use of English tiles should be encouraged, Major Boyd Carpenter said that the Minister of Health was confident that local authorities would realise the desirability of using English materials where they could be obtained at a price and of a quality which compared favourably with the foreign article. They would certainly receive the support of the Ministry in doing so.

Cost of Building Schools.

Colonel Sir Arthur Holbrook asked the President of the Board of Education the total cost imposed on national and local public funds for the erection of buildings used as elementary, secondary, and higher grade schools, and for technical colleges.

Mr. Wood said that the cost of erection of school buildings by local education authorities was, as a rule, defrayed from loans. The annual loan charges (interest and sinking fund) payable by local education authorities formed part of the expenditure in which grants were paid under the Board's regulations. In the case of higher education, the grant on the recognised expenditure was at the rate of 50 per cent. In the case of elementary education, the rate of grant on loan charges was at 20 per cent. The total expenditure on loan charges of local education authorities for elementary and for higher education in recent years was as follows:—

	Elementary.	Higher.
1919–20	£3,083,767	£524,244
1920–21	3,054,031	583,363
1921–22	3,066,000 (approx.)	689,000 (approx.)

THE RENT ACT AND BANKRUPTCY.

A CASE, Parkinson and Others *v.* Noel (*Weekly Notes*, November 4), again raised the point as to the position under the Rent Restriction Act of a tenant who has been adjudicated bankrupt and the trustee in bankruptcy disclaims any interest in the premises.

This point came before the Court of Appeal in Reeves *v.* Davies (1921, 2 K.B. 486), but in that case the tenancy was subsisting. That case will be found noted in *The Builder* for April 1, 1921, and the Court of Appeal held that where the tenant's interest had become divested from him by operation of law and had become vested in the trustee in bankruptcy there was no protection under the Rent Act, and, although in this case there had been disclaimer, it made no difference whether or not the trustee had disclaimed the lease, and judgment was given in favour of the landlord for possession. In the case we are now considering, which came before a judge of the High Court, the only difference was that the lease had expired and the bankrupt was in occupation of the premises as a statutory tenant under the Rent Act. The landlord was claiming possession, and by permission, as the case was tried as a short cause, mesne profits. The Court held that the tenant's interest in the property as a statutory tenant was "property" within the meaning of the Bankruptcy Act, 1914, which passed on his bankruptcy to the trustee, and on the latter's disclaimer ceased to exist and was no longer available for the benefit of the tenant; judgment was given for the landlord, with mesne profits.

In this case the Court dealt with the facts before it, and, as there had been disclaimer, gave judgment on that footing. The court held that Reeves *v.* Davies was not an authority on this case because there a quarterly tenancy was still subsisting at the date of bankruptcy, whilst here the tenant was a statutory tenant under the Act, but we imagine that the fact of disclaimer would make no real difference to the decision, and reading the two cases together we think it may be said that even in the case of no disclaimer on the part of the trustee in the case of a statutory tenant the claim for possession would succeed, for the reasoning in Reeves *v.* Davies would apply that where any interest of the bankrupt had been entirely divested from him by operation of law there was nothing for the Rent Act to apply to or protect.

THE BUILDING TRADE.

THE RENT ACT AND CONVERTED FLATS.

Two further cases are reported on the question of whether converted flats have so lost their identity as to come within section 12 subsection (9) of the Rent Act, and these can usefully be compared with the case, How *v.* Martin, which we noted last week. The cases are reported in *The Times* of December 1.

In one case, Woodhead *v.* Putnam, the appellant (the tenant) was appealing from the decision of a County Court Judge who had dismissed the tenant's application for an apportionment of rent under section 12 subsection (3) of the Rent Act and under section 14 subsection (1) for a repayment of sums paid in excess of the permitted rent. The house in question consisted of a basement, a ground floor, and three floors above, and in 1914 it was let as a whole at a rack-rent of £70. In 1920 the respondents had purchased the unexpired portion of the lease, 7½ years, for £550 at a ground rent of £40, and had expended some £200 in decoration and repairs, of which sum about £90 had been expended upon the two upper floors. The structional alterations to this part of the house appear to have been the erection of a partition with locked door and fanlight on the second-floor landing, the door shutting off the two upper floors from the rest of the house, the conversion of one of the rooms on the second floor into a kitchen; a loft was floored so as to make a box room, and separate gas and electric meters were fixed and other minor alterations made. In December, 1920, the appellant became the tenant of this upper part, at a rent of £150, with the right to use the staircase and hall, the w.c. and bathroom, and one cellar.

The Court, in giving judgment affirming the decision of the County Court, held that the first question to be determined in such cases was at what date was the actual rent to be taken into consideration in determining the standard rent? The house was let as a whole in 1914, but was the portion let in 1920 to the appellant included in that letting, or was it let first in December, 1920? The Court laid it down that that was a question of fact depending on the nature and extent of the structural alterations; but to come within section 12 subsection (9) complete reconstruction was not necessary, as it was a question of the physical identity of the separate portion. This was the law as laid down in Sinclair *v.* Powell (1922, 1 K.B. 393), which we noted in *The Builder*, April 28, but the Court in Woodhead's case, however, entered a little further into this question of identity, and laid it down that to justify a judge in finding as a fact that a part of a house was first let when it was first let separately there must not merely be a new and separate dwelling house in law by virtue of a new and separate letting, but a new and separate dwelling house; in fact, by virtue of substantial structural alteration. The Court held that in this case there was evidence to justify the County Court Judge in holding as he had done that the respondents had created substantially a new dwelling house.

The second case is reported in *The Times* under the same title, Woodhead *v.* Putnam. In that case a house had been let as a whole on or before August 3, 1914, at a rent of £60, but in May, 1919, four rooms on the second floor had been let to the respondent at a rent of £55 a year for three years. These rooms had never been separately rated. The Rent Act, 1920, came into force on July 2, 1920. In March, 1922, the appellant, the landlord, had served a notice to increase the rent to £59 a year. It is not stated in the report whether he had first given notice to quit, and the case does not turn upon that point, but the respondent had applied to the County Court for an apportionment of the rent of the whole house to ascertain the standard rent of the flat and his application had been granted.

There had been no structural alteration of the premises of any description, and the Court held that there was no evidence upon which any other conclusion could be reached than that the respondent's rooms were let as from August 3, 1914, with the whole house, and that the standard rent was the actual rent at that date, and therefore that an apportionment was necessary to determine the standard rent of the portion now occupied by the respondent and that the decision in the County Court was right.

It is to be observed that the house was not within the Rent Acts of 1915 or 1919 and that the rooms in question were let to the respondent in May, 1919, before the Act of 1920 came into force. On this point the Court, according to the report, only observed "the fact that when the rooms were let to the applicant on May 19, 1919, the house was not subject to the Rent Act seemed irrelevant," but possibly one or two observations on this point may be useful and the point was raised in Sinclair *v.* Powell (see *The Builder*, April 28, 1922). The circumstances of that case were somewhat similar to those in the case now decided. There the house was also not within the former Rent Acts and the letting of the part in question had also occurred before the Rent Act, 1920, came into force, but the house had been reconstructed, the work of reconstruction also having been carried out before the present Act had come into force. After the Act came into force an increase of rent was demanded and the tenant then applied for an apportionment; therefore the two cases are very much on all fours except in respect of two particulars: (1) the letting had taken place June, 1917, but in the case we are considering the letting had taken place in May, 1919, and therefore within a date referred to in section 12 subsection (9) of the Act of 1920; and (2) there had been structural alterations which were held to affect the identity of the house.

The Court of Appeal in that case had to consider whether the Act applied, and it was held that the Act did not apply, but that as each flat had a separate identity the standard rent of each flat was the rent at which it was first let. On this finding it was therefore not necessary to determine whether or not an apportionment could be ordered, but it may be observed that the Act of 1915 had a section as to apportionment in the same terms as the section now in force. Lord Justice Atkin, however, made some observations which bear on the decision of the case we are now considering. He is reported as having said: "The question whether the Rent Restriction Act for the time being applied to the house seems to me irrelevant to the question when the house was first let. It is relevant to the question whether the rent is being increased. For instance, in the present case as long as the landlord is content to take the rent as fixed in June, 1917, of £50 a year inclusive of rates it seems to me that he is not increasing the rent. If, however, he seeks to increase the rent, and standard rent is an apportioned rent, he can only increase the rent up to the apportioned rent together with the authorised statutory additions." And again: "If the part of a house was not let as a separate dwelling in August, 1914, you may show that substantially in the form in which it now is it existed and was let as part of a whole house or a larger tenement in August, 1914, and can get the rent apportioned. But if the part has been substantially altered so that you cannot fairly predicate of it that in its present form it was part of a whole let in 1914 I do not think that apportionment is possible."

These observations may tend to explain the decision in the case we are now considering. In that case no alteration had been made in the house and it had been let as a whole in 1914; thus when the landlord sought to increase the rent in 1922, the house then being within the present Act, the provisions of that Act applied, and an apportionment could be ordered under the authority of Woodward *v.* Samuels (*The Builder*, February 27, 1920).

MANUFACTURE OF SAFES AND STRONG ROOMS.

A PAPER on "Recent Developments in the Manufacture of Safes and Strong Rooms," was read by Mr. Emory Chubb, M.I.Mech.E., at the Royal Society of Arts, on Wednesday evening.

Mr. Chubb said the first public demand was, and, he thought, always would be, for safes and cupboards which would preserve their contents against fire. The essentials in a safe of that purpose were that it should be of a sufficiently rigid construction to resist fall and that its walls, of some 4 in. in thickness, should be packed in such a way that they would resist the action of heat when embedded in glowing embers or hot debris for a considerable period. The next class of safe was one that was sold by all makers to combat the risk of fire as well as that of the burglar, and was in general use throughout the country. That design was often founded on that of the fire-resisting safe, but its plates were thicker and armour-plate protected the locks to prevent the action of the drill. Certain appliances were fitted to the inside of the door so that if the locks were removed by any means the main bolts were automatically secured in the closed position. The third class of safe, to his mind, was of the greatest interest for the reason that so much was demanded of it. It was a safe which was built to stand alone unprotected and unguarded for various lengths of time and large numbers of that type have been constructed on the understanding that they could be left, fully loaded, over a week-end. It was built to resist both the use of liquid explosives as well as that of the cutting flame, whether generated by gas or electricity.

Dealing with the question of the best way in which strong rooms should be constructed, Mr. Chubb said there was some diversity of opinion on the subject, which was perhaps a good sign, but he considered the theory of the designing board should give way to the results of actual test. In all strong room work the greatest interest centred on the door because, provided they had good strong walls which were properly designed, the safemaker had to provide for blocking up the one weak spot in the room, which, of course, was the doorway. Here they had a break in the line of defence, and the skill of the safemaker was shown by the manner in which he could arrange to make that good. With regard to the construction of the walls, the principles followed were similar to those adopted in building heavy doors, and consisted in placing as many independent obstacles as possible, or different lines of defence against the burglar, so that he was unable to persist in one method of attack for any length of time. Provided sufficient space be available, he considered the best form consisted of an outer wall of hard Staffordshire blue bricks, which protected an armed concrete wall made up to a certain prescription, and reinforced in a scientific manner with hard steel bars. Inside of that should come a complete steel room of a thickness of from 1½ in. to 3 in. of tough steel, armourplate or unburnable alloy, according to the requirements of the situation. The ideal door towards which all thoughtful safe designers were working was not one which allowed of the exposure of its component plates on which it relied for its principal strength. In that new design they had departed from all precedent, and although he did not claim that the new type of door was perfect, it represented, so far as he was aware, a great advance on anything that had yet been built in this country. The door itself consisted of a hollow cast steel manganese box 2 in. thick all over, and about 2 ft. deep. Externally that was very accurately machined so as to ensure that it made a metal to metal joint with its surrounding frame, which was cast in one piece out of the same metal.

The interior of the box is filled up to a depth of about 16 in. with the doorplate of armourplate and unburnable alloy, together with its additional flame-resisting covering. In front of the flame protector and directly behind the 2 in. slab of manganese steel was placed an electric screen, which gave an alarm on being penetrated by any method. Inside of the doorplate was placed the lock and bolt mechanism. When the smaller wheel on the outside of the door was turned the circular bolts shoot out and were secured behind the frame, which, of course, prevented the door from being pulled open, and the driving mechanism of those bolts was controlled by four keyless combination locks, which could be used either singly or in pairs.

BETTER AND CHEAPER CONCRETE.

We have received the following letter from Mr. G. A. LONGLEY:—

SIR,—Many of the more progressive concerns of to-day handling large masses of concrete are turning to the use of hydrated lime. Its use has been slow, but there is little doubt that it will be universal in the near future. Architects and engineers are beginning to realise that the advantages of the addition of hydrated lime to concrete outweigh the disadvantages. The specialist in concrete work has proved this for some time past, but of course he is governed by what may be termed the usual stock specification. The writer has often been handicapped in this way by carrying out improvements in the preparation of concrete. Owing to limited space the discussion of the ordinary building limes will be placed on one side, as we all know that any addition of a quicklime is only asking for trouble. The writer has used hydrated lime in concrete with good results. Proper supervision of the mixing is absolutely essential. The hydrated lime must be specially prepared, very fine, and guaranteed not to contain more than one per cent. free lime. The lime must be absolutely correct, otherwise stone-dust or any like material may just as well be incorporated, which only collects and clogs, preventing the thorough distribution of the cement. With hydrated lime the water is in chemical combination with the lime. In mixing concrete there is with the cement a slight increase in volume, whereupon the hydrated lime comes into action as a filler, and at the same time freely liberating its water to the cement, thus ensuring complete hydration and final crystallisation of the cement. The particles of hydrated lime being so fine, fill up the voids and produce a much denser concrete with complete uniformity, while its plasticity is increased and its weight reduced, resulting in a practically waterproof material.

The writer has found by using hydrated lime that a saving in labour has resulted in being able to remove the forms and shuttering more quickly (this being important on time-limit jobs) and with either wet or dry mixtures. Another point is that with concrete used in the construction of roads hydrated lime seems to be just what is most needed.

The writer would like to know the views of others on this important subject.

[**** Exhaustive tests recently carried out by Professor Duff Abrams at the Structural Research Laboratory, Chicago, on the effect of the addition of hydrated lime to concrete gave the following results: (*a*) Hydrated lime has little effect on the absorption of dry concrete; (*b*) each 1 per cent. of hydrated lime (in terms of the volume of cement) reduced the compressive strength by 0.5 per cent. These tests, therefore, go to show that as a filler or waterproofing agent hydrated lime is ineffective, otherwise it would have decreased the absorption of dry concrete. Also, it was found that the addition of from 10 per cent. to 15 per cent. of hydrated lime to the volume of the cement would reduce the strength of the concrete by from 5 per cent. to 7½ per cent—ED.]

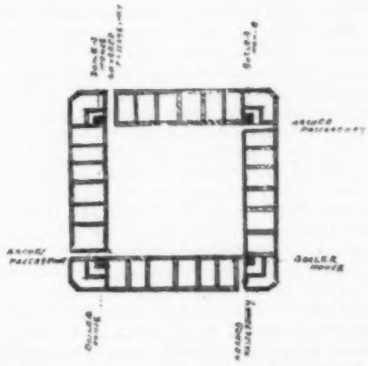
THE BUILDING UNIT IN THE RESIDENTIAL PARTS OF CITIES.

Mr. S. CAMERON writes:—

SIR,—Garden cities have been an interesting experiment of recent years and a step in the right direction, but obviously they have several drawbacks. They certainly should not be allowed to spread indiscriminately over the countryside. They can ruin a beautiful landscape as effectually as the most industrialised town and spread the damage over a wider area.

The better alternative appears to be small cities about the size of Bath, with well-regulated garden suburbs and a belt of more or less open country around each. One cannot, of course, fix any absolute limit for the size of such a city, but, as a rough guide, it should be possible to traverse it on foot in any direction in half an hour. That is to say, the area of the city should not exceed two miles in diameter.

In the residential area, a much better effect would be obtained by parcelling out the ground into a number of small closed squares than by running up streets in the usual way with long unbroken strips of brick houses and slate roofs, linked to similar streets by garden walls or fences and exhibiting the most deplorable backs. A typical unit would be a square having a side of from two to three hundred feet; each side



would consist of about eight houses of, say, thirty feet frontage, with no appreciable projections back or front. At the four corners there would be houses of a different type; they would be of L-shape, having the main entrance at the angle, and all the important rooms would look out on the two adjacent streets of the corner. There would be no windows to speak of at the back, as the space there would be enclosed by the side walls of the adjoining houses. At the corners, also, there would be narrow passage ways leading from the street to the inner garden, to provide access for tradesmen's goods and garden material. Before dusk the gates of these entrances would be closed and the fact automatically signalled to all the residents.

At these corners, at the rear of the L-shaped houses, would be the central heating boilers, supplying the heat to the two halves of the adjacent sides. The centre garden might be given up to public use or divided up with walls and fences into private gardens. If used as a public garden, each house would have a small forecourt reserved to it. In either case a small clump of small trees, such as fruit trees, and shrubs in the centre would constitute a pleasing objective from the windows of the houses. These unit squares would be grouped together to make streets, boulevards, and public squares, with one, two or three units to the side.

The laundry problem would also require careful consideration. In certain neighbourhoods for half the week washing day has become an obsession. Possibly the central heating boilers may get over the difficulty, and special drying rooms be set aside for the purpose of drying clothes.

Nothing is to be gained by erecting shopping and business premises in these square formations. There would, in fact, result certain disadvantages. It would not be satisfactory if one side of the square consisted of shops and the other sides were residential. The backs of business premises might woefully disturb the harmony of the small community; the rattling of milk cans, for instance, at 5 a.m., would rudely shatter that cloistered peace which it is the main object of the closed square formation to secure.

EMPIRE FORESTRY.

THE devastation of the timber supply throughout the Empire is the theme of Mr. R. L. Robinson's article which opens the first volume of the "Journal of the Empire Forestry Association" (London: Macmillan & Co., Ltd., price 4s. net). Just as the trappers of game tend to annihilate their quarry, the timber-getters of the Empire are felling trees at a far greater rate than they can be replaced, until a time has come when the end of our resources looms in sight and active measures of afforestation will have to be employed to meet the demand. In the case of such slow-growing things as forest trees every year's delay is a dead loss; and not only that, for a land denuded of its timber is found to suffer a change in climate, and generally speaking the difficulty of creating new forest land is greater out of all proportion to that of developing existing forests. The methodical cultivation of Indian State forests is held up as an example of what Britons can achieve when their minds are bent to the task. "The beginnings of Indian forestry," says Mr. Robinson, "were perhaps incidental to the assumption of the white man's burden; the forests were there and had to be administered in the interests of a teeming and apathetic people. . . . The growing success of the work over nearly half a century is a concrete reminder that forestry is not merely the fad of a few enthusiasts." Figures are given for the present production of timber throughout the Empire, but the keynote of the situation is struck in the sentence, "The United Kingdom drew (1909–1913) 88 per cent. of her imports from without the Empire."

THE ILFORD HOUSING SCHEME.

AT the meeting of the Court of Common Council of the City Corporation, held on November 30, MR. DEPUTY S. J. SANDLE asked what steps had been taken to correct the wrong impression conveyed by the extraordinary statements which had recently appeared in the Press purporting to have emanated from the Chairman of the Housing Committee at a meeting held in the Guildhall, one of the statements being that the cost of the houses erected by the Corporation at Ilford was £13,000 each.

MR. A. JERROLD-NATHAN (Chairman of the Special Housing Committee) said that he arrived at the figure of £13,000 following a statement supplied to him by the Accountant to the Public Health Department. The figures mentioned in the statement, so far as he could judge, were perfectly correct.

MR. DEPUTY HARVEY PREEN said the figures quoted were highly hypothetical. An enormous amount of waste had taken place.

MR. J. R. PAKEMAN, C.B.E., moved that it be referred to the Housing Committee to consider and report as to what extent, if at all, such statement was justified by the actual facts.

MR. JOSIAH GUNTON, F.R.I.B.A. (the Chief Commoner) said that his prediction, made when the question was first mooted, as to what would be the result of the housing scheme, had turned out correct. The Corporation had been to blame in giving in to the Ministry of Health.

MR. WALTER FORTESCUE said the Housing Committee had been responsible, by refusing to carry out the full scheme and complete the contract forced on them by the Minister of Health, for stopping the ghastly waste of money that had been going on all over the country.

MR. JERROLD-NATHAN, in closing the debate, accepted Mr. Pakeman's motion and said he had nothing to conceal and nothing to repent. Whether the statement he had made was prudent or not, the ratepayers who had to provide the money had a perfect right to know how their money was spent.

LAW REPORTS.

Arding & Hobbs v. W. S. Sandison.

This action, heard by Sir Francis Newbolt, one of the High Court Official Referees, was brought by Messrs. Arding & Hobbs, Ltd., builders, of Lavender-hill, London, against Mr. W. S. Sandison, of Barnet Wood-lane, Ashtead, Surrey, to recover the balance of charges for building a bungalow at Ashtead. For work and labour done and materials supplied the total charge was £2,145 8s., to which was added 15 per cent. for profit and establishment charges, bringing the total up to £2,552 3s. 8d. Of this, £1,700 had been paid, leaving the balance of £852 3s. 8d., which was the subject of the claim. The main defence was defective work and overcharge.

From the statement of Mr. Fortune, who was for the plaintiffs, it appeared that on July 8, 1920, the plaintiffs gave defendant an estimate which, together with correspondence which followed, constituted the contract, which was accepted verbally and confirmed by plaintiffs. The estimated cost was £1,478 based upon time and material, plus 15 per cent. for establishment charges and profits. Of the net cost, 90 per cent. was to be paid as the work proceeded, and the balance on completion. Mr. Candish was the architect. When the contract was made the defendant thought the work would cost £1,478, but no one really knew what the work would cost, as it had to be done at a time of great difficulties for builders. The plaintiffs, said counsel, had to struggle against great difficulties, and it was not likely that they would enter into anything like a binding contract. The work was carried out on the terms arranged, and when completed an account was sent in to the amount of about £2,500. The alterations and extras came to between £500 and £600. The account was sent in showing the balance of £1,152 3s. 8d., due on February 19, 1921. That amount was altered in the writ to £852, owing to payments made on account, and every facility had been given to defendant to investigate by going through plaintiffs' books. The total prime cost for work came to £1,024 13s. 5d., and the prime cost for materials was £1,111 14s. That was the total prime cost of the whole job, and after charging the 15 per cent. and making certain deductions the amount claimed worked out at £786 3s. 10d., and how the result was arrived at was shown by plaintiffs' prime cost book.

The defendant said that there was an overcharge of £486, and met the claim, said counsel, by a blank denial of everything. Continuing, plaintiffs' counsel said the defendant took from October to February to put in the defence, when £300 was paid into Court; but this the plaintiffs were not prepared to accept. They, however, would have accepted the prime cost only without claiming any profit for the firm.

Mr. B. Hammond, plaintiffs' manager, was examined on the details of the work done, the cost, and the fairness of the charge. In the course of his cross examination, he said that the fluctuation of prices at the time when the work was done made it difficult to fix the amount upon which the 15 per cent. could be charged.

The witness was questioned closely on book entries and invoices with a view to supporting defendant's allegation that there had been a great overcharge for materials, that articles invoiced at a few shillings had been increased (according to defendant's counsel) from 60 to 200 per cent., and that there had been much too heavy a charge for extras.

Mr. H. S. Candish, architect and surveyor, who gave evidence on subpœna, said that in May and June, 1921, he was acting for the building owners in two cases where Messrs. Arding & Hobbs were employed as builders. He prepared plans from sketches supplied by Messrs. Arding & Hobbs, but he had nothing to do with the contract. Some time after that he was employed by the defendant and acted on his behalf throughout the job. The work was started about July 12, and after that date he supervised on behalf of the defendant and visited the site once or twice a week. He inspected the work from time to time and gave certificates. Treating the job as a whole he was of opinion that substantially it was well done, especially considering the troubled times in which it was done.

At the assembling of the Court on Thursday, the fourth day of the hearing, Mr. Fortune, plaintiff's counsel, announced that the parties had come to terms. The defendant having paid a further sum beyond the money paid into Court, he now asked for an order for payment out of the £300 in Court and judgment for plaintiff on the claim and counterclaim.

The Official Referee said that defendant had been well advised in settling the case. The defendant had no doubt been taken by surprise by the contract, and felt that he had a grievance, but when his architect ordered extras he (defendant) was responsible for them.

Judgment was entered for the plaintiff on terms endorsed on counsel's briefs.

Ancient Lights Action.

In the Chancery Division, recently, before Mr. Justice Romer, judgment in the case of Slack *v.* Leeds Industrial Co-operative Society was given. The case, which was heard in July last, was an action by Mr. C. H. Slack, of Leeds, for an injunction to restrain the Leeds Industrial Co-operative Society, Ltd., from erecting a building in or near Albion-square so as to cause a nuisance by the obstruction of his ancient windows as they existed before the pulling down by defendants of 15, Albion-square, or so as to obstruct or interfere with the roadway of Albion-square and the free use and enjoyment by plaintiff of the right of way. Plaintiff also complained of interference with his supply of air.

His Lordship, giving judgment, said he had come to the conclusion that plaintiff had failed to establish the probability that the interference with air would alone entitle him to succeed, and he must hold that Mr. Slack had failed to discharge the onus of proof which lay upon him to satisfy the court that there would be such an interference. With regard to the issue as to the interference with the lighting, the judge said he was not quite convinced that the interference would be as great as the plaintiff desired to set up, but he thought there was a probability that there would be interference, and, therefore, he would grant an injunction against the defendants on this issue with costs. On the other issues, however, defendants must succeed, and plaintiff must pay the costs.

Mr. Cunliffe, K.C., for defendants, intimated that the decision might be taken to the Court of Appeal.

THE RENT ACT: USE OF FURNITURE.

THE recent case, Wilkes and Jones *v.* Goodwin (*The Times*, November 3) illustrates the absurdity of some provisions in the Rent Act. In section 12 there is a proviso to subsection 2 that "this Act shall not save as otherwise expressly provided apply to a dwelling-house *bona fide* let at a rent which includes payments in respect of board, attendance or use of furniture." The appellants in this case were tenants of certain floors in a maisonette, and in the ground-floor rooms and one bedroom on the first floor there was linoleum laid on the floors which belonged to the landlady. The original rent had been for a certain amount with an additional sum of £5 for the use of the linoleum, but in 1920 a new lease had been entered into for £80 a year, which was to include the rent, rates and taxes and the use of this linoleum.

The tenants had applied for an apportionment of the rent, as they alleged it exceeded the standard rent, but the landlady contended that the Act did not apply because, under the above proviso in the Act, there was use of "furniture" included in the rent. The Registrar of the County Court had held that the linoleum was "furniture," but in view of the smallness of the value of the linoleum compared with the rent and of the fact that the tenants did not desire it but it had been forced upon them, this was not a *bona fide* letting at a rent which included the use of furniture, and he apportioned the rent. On appeal to the Judge, although he practically agreed with the Registrar on both points, he felt constrained by the decision in Nye *v.* Davis (see *The Builder*, March 31) to reverse his decision as he considered that that case precluded him from considering whether the furniture was too trivial to constitute a *bona-fide* letting. Nye *v.* Davis was not a case of "furniture" but of "attendance," and the attendance that was deemed to take the house or flat out of the Act was carrying coals up to the flat and emptying the refuse bin.

The tenants appealed to the Divisional Court, but the judges there differed in their opinion and hence the decision of the County Court Judge stands. The report is not quite clear, but it appears that Mr. Justice Avory referred to the marginal notes to sections 9 and 10 and considered that a house with only linoleum down could not be considered a furnished house, and that the County Court Judge should have considered the point whether this linoleum constituted use of furniture at all under the lease, but Mr. Justice Salter thought the proviso was specific and was meant to include all lettings with any furniture.

Surely this case illustrates the hopeless nature of this legislation in connection with practical matters. The rent to be charged for this maisonette depends upon the question whether a floor covering on part of it takes the house altogether out of the Act. Already there have been practically three hearings, and as the judges differ there has to be a further appeal to the Court of Appeal. As Mr. Justice Avory observed, the argument for the landlord forced one to the conclusion that a house let with a door-mat in it would be a letting with the use of furniture, and we should have thought that the legal maxim *de minimis non curat lex* might be applied to all such cases, but modern legislation lends itself to fine points of this kind, and we find the time of three courts occupied in determining without success whether a small portion of floor covering takes a house out of the Rent Act.

There have, we think, only been three reported decisions on this proviso to the Act:—Nye *v.* Davis (1922, K.B. 56, *The Builder*, March 31); King *v.* Miller (1922, *Weekly Notes*, 263, *The Builder*, August 25, 1922)—both these cases turned on "attendance"—and Necchi *v.* Cranchi (*The Builder*, August 26, 1921). This latter case did turn on "furniture," as business premises had been let with some furniture, and the Court of Appeal held that as the rent included the use of furniture the Act did not apply, but the furniture in that case constituted a substantial element in the letting, for it included such articles as marble-topped tables, chairs, mirrors, jugs., &c., for use in the defendant's business as a confectioner.

THE NATIONAL BUILDING GUILD.

AT a recent meeting of creditors of the National Building Guild held at Manchester, the question was discussed of the possibility of avoiding liquidation. It was decided to adjourn the meeting for a week, and in the meantime a committee of six was appointed to investigate the guild's affairs, and to make such arrangements as are necessary to protect the interests of the traders.

British Empire Exhibition.

A growing demand for space at Wembley is reported by the British Empire Exhibition authorities. It has been decided that the task of finally allotting space, not only to the respective groups but to the various applicants within each group or section, shall not be undertaken before the New Year, and that, subject, of course, to the preference to be given to guarantors, all applications received up to the end of the present year shall be given full consideration.

WOODWORKING MACHINERY REGULATIONS.

In pursuance of Section 79 of the Factory and Workshop Act, 1901, the Secretary of State for the Home Office makes the following Regulations ("The Woodworking Machinery Regulations, 1922, dated November 2, 1922, for the use of Woodworking Machinery") and directs that they shall apply to all factories or parts thereof and to any place to which the provisions of the said section are applied by the said Act in which any woodworking machinery is used. Provided that if the Chief Inspector of Factories is satisfied in respect of any factory or other place to which these Regulations apply that, owing to the special conditions of the work or otherwise, any of the requirements of the Regulations can be suspended or relaxed without danger to the persons employed therein, he may by certificate in writing authorise such suspension or relaxation for such period and on such conditions as he may think fit. Any such certificate may be revoked at any time. These Regulations are to come into force on January 1, 1923.

Definitions.

In these Regulations—

"Woodworking machine" means circular saw, plain band saw, planing machine, vertical spindle moulding machine or chain mortising machine operating on wood.

"Circular saw" means a circular saw working in a bench (including a rack bench) for the purpose of ripping, deep-cutting or cross-cutting, but does not include a swing saw or other saw which is moved towards the wood.

"Plain band saw" means a band saw, other than a log saw or band re-sawing machine, the cutting portion of which runs in a vertical direction.

"Planing machine" includes a machine for overhand planing or for thicknessing or for both operations.

"Within reach" means within 6½ ft. from the floor or from any other point to which any person employed or working in a factory normally has access while the machinery is in motion.

"Underground room" means a room any part of which is so situate that half or more than half the whole height thereof measured from the floor to the ceiling is below the surface of the footway of the adjoining street or of the ground adjoining or nearest to the room.

"Gauge" means the Imperial Standard Wire Gauge.

Duties.

It shall be the duty of the occupier to observe Part I of these Regulations.

It shall be the duty of all persons employed to observe Part II of these Regulations.

Part I.—Duties of Occupiers.

1. Every woodworking machine shall be provided with an efficient stopping and starting appliance, and the control of this appliance shall be in such a position as to be readily and conveniently operated by the person in charge of the machine.

2. Every shaft, wheel, pulley, strap, band or other device within reach by which any part of a woodworking machine receives its motion shall be securely fenced.

3. Sufficient clear and unobstructed space shall be maintained at every woodworking machine while in motion to enable the work to be carried on without unnecessary risk.

4. The floor surrounding every woodworking machine shall be maintained in good and level condition, and as far as practicable free from chips or other loose material, and shall not be allowed to become slippery.

5. Where the natural light at a woodworking machine is inadequate and can be improved by the provision of additional or better windows not involving serious structural alteration, or by whitening the walls or tops of the factory, or by any other reasonable means, the occupier shall take steps as aforesaid to improve the natural light at the said machine.

6. The means of artificial lighting for every woodworking machine shall be adequate, and shall be so placed or shaded as to prevent direct rays of light from impinging on the eyes of the operator while he is operating such machine.

7. After the 1st March, 1924, no woodworking machine shall be worked in any underground room which is certified by the Chief Inspector of Factories to be unsuitable for the purpose as regards construction, light, ventilation or in any other respect.

8. The temperature of any part of a room in which a wood-working machine is being worked shall not at any time fall below 50 degrees, except where and in so far as the construction of the room and the necessities of the business carried on make it impracticable to maintain this temperature.

9. (*a*) Every person while being trained to work a woodworking machine shall be fully and carefully instructed as to the dangers arising in connection with such machine and the precautions to be observed.

(*b*) No person shall be employed at a woodworking machine unless he has been sufficiently trained to work that class of machine or unless he works under the adequate supervision of a person who has a thorough knowledge of the working of the machine.

10. Every circular saw shall be fenced as follows:—

(*a*) The part of the saw below the bench table shall be protected by two plates of metal or other suitable material, one on each side of the saw; such plates shall not be more than six inches apart, and shall extend from the axis of the saw outwards to a distance of not less than two inches beyond the teeth of the saw. Metal plates, if not beaded, shall be of a thickness at least equal to 14 gauge, or, if beaded, be of a thickness at least equal to 20 gauge.

(*b*) Behind and in a direct line with the saw there shall be a riving knife, which shall have a smooth surface, shall be strong, rigid, and easily adjustable, and shall also conform to the following conditions:—

(i) The edge of the knife nearer the saw shall form an arc of a circle having a radius not exceeding the radius of the largest saw used on the bench.

(ii) The knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time, and at the level of the bench table the distance between the front edge of the knife and teeth of the saw shall not exceed half an inch.

(iii) For a saw of a diameter of less than 24 in., the knife shall extend upwards from the bench table to within one inch of the top of the saw, and for a saw of a diameter of 24 in. or over shall extend upwards from the bench table to a height of at least 9 in.

(*c*) The top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.

11. A suitable push-stick shall be kept available for use at the bench of every circular saw which is fed by hand, to enable the work to be carried on without unnecessary risk.

12. Every plain band saw shall be guarded as follows:—

(*a*) Both sides of the bottom pulley shall be completely encased by sheet metal or other suitable material.

(*b*) The front of the top pulley shall be covered with sheet metal or other suitable material.

(*c*) All portions of the blade shall be enclosed or otherwise securely guarded, except the portion of the blade between the bench table and the top guide.

13. After 1st March, 1924, no planing machine, which is not mechanically fed, shall be used for overhand planing unless it is fitted with a cylindrical cutter block.

14. No planing machine, which is not mechanically fed, shall be used for planing overhand any piece of wood less than 12 in. in length unless a safe holder is used for such piece of wood. Provided that this regulation shall not apply to the operation of planing the edges of flat pieces of wood, nor to a planing machine which is fitted with a cylindrical cutter block.

15. Every planing machine used for overhand planing shall be provided with a "bridge" guard capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.

16. The feed roller of every planing machine used for thicknessing, except the combined machine for overhand planing and thicknessing, shall be provided with an efficient guard.

17. The cutter of every vertical spindle moulding machine shall when practicable be provided with the most efficient guard having regard to the nature of the work which is being performed.

18. For such work as cannot be performed with an efficient guard for the cutter, the wood being moulded at a vertical spindle moulding machine, shall, if practicable, be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.

19. A suitable "spike" or push-stick shall be kept available for use at the bench of every vertical spindle moulding machine.

20. The chain of every chain mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable.

21. The guards and other appliances required by these Regulations shall be maintained in an efficient state and shall be constantly kept in position while the machinery is in motion, except when, owing to the nature of the work being done, the use of the guards or appliances is rendered impracticable. The guards shall be so adjusted as to enable the work to be carried on without unnecessary risk.

22. Regulations 10, 12, 15 and 16 shall not apply to any wood-working machine in respect of which it can be shown that other safeguards are provided and maintained which render the machine equally safe as it would be if guarded in the manner prescribed by these Regulations.

Part II.—Duties of Persons Employed.

23. Every person employed on a woodworking machine shall—

(i) Use and maintain in proper adjustment the guards provided in accordance with these Regulations;

(ii) Use the "spikes" or push-sticks and holders provided in compliance with Regulations 11, 14, 18 and 19; except when, owing to the nature of the work being done, the use of the guards or appliances is rendered impracticable.

[Copies of the Regulations may be obtained from H.M. Stationery Office, price 2d. net.]

NEW BUILDINGS IN LONDON.

WALTHAMSTOW.—Alterations to the existing premises of Lloyds Bank are being carried out by Messrs. Holliday & Greenwood. A new stone front is being provided and interior alterations are also being undertaken. There are no sub-contracts.

MIDDLESEX EDUCATION COMMITTEE.—New schools at Ealing, Chiswick, Teddington, Harrow, Southgate, and Feltham are, we understand, proposed by the Middlesex Education Committee.

CADOGAN GARDENS.—Messrs. T. W. Heath, Ltd., 29 to 33, Christchurch-street, Chelsea, S.W.3, are carrying out work at No. 81, Cadogan-gardens.

GRACECHURCH-STREET.—Messrs. Chappell & Co. (R. White), Ltd., 11, Pancras-lane, E.C.4, are carrying out general decorations and repairs to the exterior and interior of Nos. 61–62, Gracechurch-street.

ST. MARY AXE.—The adaptation of an existing warehouse into offices for Messrs. Jaap, Hatch & Co. is being undertaken by Messrs. Holliday & Greenwood. The central heating is by Messrs. Barratt & Wright, the lifts by Waygood-Otis, and the iron sashes by the Crittall Manufacturing Co.

SOUTHWARK PARK.—It has been decided to construct an open-air swimming bath in Southwark Park. The bath will, it is understood, be 180 ft. in length and 60 ft. in breadth, and constructed of reinforced concrete, and will be surrounded by a path 12 ft. in width, with a grass belt of the same width. The whole will be screened by a bank 8 ft. in height, formed of the excavated material. No dressing accommodation will be provided for the present.

EMBANKMENT.—It is proposed by the London County Council Improvements Committee that the embankment which extends from the Victoria Tower Gardens to Lambeth Bridge should be continued to connect with the embankment in Grosvenor-road. In addition to the embankment extension, it is intended to secure a rectification of the frontage on the west side of Grosvenor-road between Horseferry-road and a point south of Grosvenor Wharf, and a widening of Horseferry-road in general to 60 ft. between St. John's-gardens and Grosvenor-road; and to provide for a western approach to a reconstructed Lambeth Bridge. The total cost of the scheme is estimated at £160,000; and (says the *Telegraph*), the committee state that the execution of the scheme will result in a most desirable extension of the Westminster improvements carried out under the Act of 1900, besides removing some of the difficulties which have hitherto prevented the preparation of a satisfactory scheme for dealing with Lambeth Bridge.

LAMBETH BRIDGE.—The agenda of the L.C.C. contains the following notice of motion by Councillor Ward: That it be referred to the Improvements Committee to consider and report whether an application should be made to Parliament in November, 1923, for powers to proceed with the rebuilding of Lambeth Bridge, which has been condemned and closed to traffic for twelve years, in order to enable the work to be commenced by November, 1924.

HACKNEY.—The Buildings Sub-Committee of the London Education Committee recommend that, with a view to the relief of unemployment, the rebuilding of the London Fields London County Council school, Hackney, S., be proceeded with, subject to certain conditions. The provisional capital estimated is £38,127.

WHITECHAPEL.—Mr. S. D. Goldberg, 10A, Great Garden-street, Aldgate, is carrying out County Council requirements at the Tivoli Cinema, Whitechapel High-street. There are no sub-contractors.

FENCHURCH-STREET.—We understand that rebuilding of the premises occupied by Messrs. E. Head & Co., 65, Fenchurch-street, E.C. 6, is contemplated.

EDGWARE.—Messrs. Holliday & Greenwood Ltd., are building a new branch of Lloyds Bank at Edgware. Mr. T. M. Wilson is the architect. Messrs. Aston & Sons are doing the steelwork.

LEYTONSTONE.—A site has been acquired at Leytonstone for a super-cinema and winter gardens, with a seating capacity for 4,000 persons.

COLEMAN-STREET.—A notice appears on the premises occupying a corner site in Coleman-street, bearing the name o the Swiss Bank Corporation.

BALHAM.—A site has been acquired on Bedford-hill, Balham, for a covered market. Messrs. Arding & Hobbs, Ltd., Lavender-hill, S.W. 11, are the contractors. The external walls will be of brickwork and Carraraware to front. There will be granolithic flooring, steel members to roof, part painting and glazing and part asbestos corrugated tiles, and cement rendering to the dressings to front. The sub-contracts have not yet been let.

KING'S CROSS.—We understand that Messrs. Symington, Son, & Co., St. Vincent-street, Glasgow, have secured the contract for the Great Northern Railway Co.'s extensions at King's Cross. The work consists mainly of heavy excavations and retaining walls. The unskilled labour is to be obtained in London, while Glasgow is to furnish the skilled labour. The contract is to be started at once.

BALHAM.—Alterations are being carried out to the Balham Club. The architect is Mr. E. W. Fisher, Amberley House, Norfolk-street, Strand.

NEW BUILDINGS IN SCOTLAND.

LUSK.—The foundation stone has been laid of the new Parish Church, the outlay of which will be about £20,000. Mr. J. J. Robinson is the architect.

SPITTALFIELD.—The question of a site for the proposed new school has been under the consideration of the Blairgowrie and Dunkeld Education Authority. It was thought the small field on the south side of the Coupar Angus—Dunkeld-road should be feued.

DUFFTOWN.—A Roman Catholic School is to be erected, for which tenders have been accepted.

GLASGOW.—The Housing Committee have accepted tenders amounting to £35,998 for the second instalment of the Coplawhill Housing Scheme, subject to the approval of the Board of Health; also for the streets and sewers at the Hawthorn Housing Scheme for £8,801, subject to the approval of the Board.——The Dean of Guild Court passed plans for the erection of ten five-apartment houses in Dinmont-road, Shawlands, Glasgow, at an estimated cost of £9,448.——The Corporation Gas Dept. are to erect a new workshop in Maxwell-road, at an estimated cost of £3,225; and the Glasgow Parish Council are to make some additions to Stobhill Hospital, at a cost of about £2,822.——Permission was also given to John Dixon, builder, Giffnock, to erect a bungalow in Merrylee-road, Newlands; to the Incorporated Glasgow Dental Hospital to make additions to hospital, 158, Renfrew-street; to the Glasgow Academy Co., Ltd., and David M. Sloan, C.A., to erect additional grand stands at Anniesland-road and Helensburgh-drive; and to the West of Scotland Cricket Club, Hamilton-crescent, to make additions and alterations to pavilion at Hamilton-crescent, Partick.

TRURO.—It is proposed to spend about £5,000 on the erection of a new public hall.

DUNDEE.—Plans are being prepared for Messrs. Caird, Ltd., Ashton Works, Hawkhill, for the addition of two stories to the factory building facing Hawkhill.

GOUROCK.—The Dean of Guild Court has passed plans for a police station in Kempock-place, adjoining the Municipal Buildings which are now in course of erection.

PORTSOY.—Steady progress is being made with the new hall which is being erected for St. Stephen's Lodge of Freemasons.

MUSSELBURGH.—The Town Council has renewed its application to the Dean of Guild Court for approval of plans for the erection of 20 houses.

WEST KILBRIDE.—Plans have been passed by the Northern District of Ayrshire for the following: Cottage at Fullarton-drive, West Kilbride, for Mr. Wm. Caldwell, Kilwinning; cottage, at Meadowfoot, West Kilbride, for Mr. Wm. Binnie, Langside-terrace, Glasgow; house on Carlung Estate, West Kilbride, for Mr. C. Poole Jones, Nobel House, Stevenston; and a bungalow, at Auchengarth, Skelmorlie, for Miss A. Penman, Largs.

STIRLING.—A deputation of the Town Council is to visit the Board of Health with a view to the proposed erection of tenement houses on the south side of Broad-street. The Town Council has approved plans as follows: The Stirling Hotels, Ltd., Glasgow, two additional stories on the ballroom wing of the Golden Lion Hotel; and Menzies Bros., garage at Orchard-place.

MOTHERWELL.—The Dean of Guild Court has given authority to Wm. Cross Ferguson, chemist, to make alterations to his premises in Manse-road, to be used as a shop; and to Murdoch MacKenzie, contractor, Draffan-street, for the erection of two houses, in Nigel-street, at the corner of Crawford-street.

UNEMPLOYMENT IN THE BUILDING TRADE.

THE London County Council Special Committee on Unemployment gives the following figures on unemployment in the building trades in Greater London:—

Designation.	Total estimated number of insured work-people.	Number of unemployment books remaining lodged on on Oct. 23rd.	Percentage unemployed at Oct. 23rd.
Carpenters	24,920	2,127	8.5
Bricklayers	9,760	888	9.1
Masons ..	2,040	169	8.3
Slaters ..	570	92	16.1
Plasterers	4,110	431	10.5
Painters	34,200	7,430	21.7
Plumbers	7,390	730	9.9
Labourers	66,120	13,829	20.9
All other occupations	24,310	4,415	18.2
Total ..	173,420	30,111	17.4
CONSTRUCTION OF WORKS.			
Navvies ..	2,540	504	19.8
All other occupations	9,940	2,416	24.3
Total ..	12,480	2,920	23.4
GRAND TOTAL	185,900	33,031	17.8

Twelfth-Century Stonework Discovery.

A discovery of archæological interest has been made in the chapel at Auckland Castle, the episcopal residence of the Bishop of Durham, says the *Manchester Guardian*. Workmen engaged by the Ecclesiastical Commissioners to repair some dilapidations in the west wall of the chapel found the floriated capital of an arch deeply embedded in plaster. When the whole of the plaster had been removed a specimen of some beautiful arcading of the twelfth century was revealed. Several arches which have been exposed to view are to be left uncovered.

NEWCASTLE BUILDING TRADES' EMPLOYERS' ASSOCIATION.

THE Newcastle and Tyne District Building Trades' Employers' Association, who have acquired new offices and meeting rooms at Grainger Chambers, Grainger-street, Newcastle, held their annual meeting recently, and the occasion was taken to formally open the newly-acquired headquarters. The President, Mr. William Hall, J.P., of Gateshead, took the chair.

In declaring the new premises open, Councillor S. Easten, speaking in his capacity as chairman of the National Wages and District Council, said operatives were difficult to persuade that they should suffer wage reductions, which were, of course, essential to the welfare of the trade when there were people who were maintaining prices of materials at a great cost. As a matter of fact, people were not only doing that, but were under-cutting builders in many ways. At the present time the building trade was being stifled because of the excessive costs. Provided they could get prices down to a reasonable figure, he was sure there would be such a boom in building as had not been experienced for very many years. Councillor Easten strongly urged the establishing of free trade in cement. That was a matter that both touched their dignity and their pockets. Their trade should do all in their power to get prices to fit the pockets of their customers, and he hinted that general action was to be undertaken as to present prices charged for cement in this country. When matters were easier he predicted an abnormal demand for building work.

The principle upon which they were working was an effort to secure stabilisation, and they were endeavouring to make the operatives realise that the employers were not trying to effect "cuts" in the wages to the lowest level, but to give them the most the industry would permit. The sooner they were able to get back to free trade in house building, the better it would be for all concerned with building.

Mr. Alfred Smith, secretary and treasurer, presented his report and balance sheet, which were approved.

A review of the activities of the Association during the past twelve months was given by Mr. Hall, who remarked that there had been three wages reductions, and a further reduction would no doubt be arranged at the beginning of next year, when they were hopeful that some attempt might be made to obtain a stabilisation of wages for a given period, which would very greatly assist many schemes to materialise which were now lying in abeyance.

In recognition of their services nationally in connection with the building industry, Councillor Easten and Mr. S. Miller were presented with medallions from the Association.

The election of officers resulted as follows: President, Mr. W. Hall (re-elected); vice-president, Mr. Thomas Bertram Earsdon; treasurer and secretary, Mr. Alfred Smith (re-elected); auditors, Mr. J. F. Horn and Mr. T. Clements (re-appointed).

The members elected to the Executive Committee were: Mr. Robert Jackson, Mr. W. Thompson, Mr. Stephen Buy, Mr. Stanley Miller, Mr. George G. Carr, Mr. T. C. Clements (Newcastle); Mr. G. V. Scott (Dunston), Mr. George Browell (Blaydon), Mr. J. Rippon (Gateshead), Mr. C. Bolam (Birtley), Mr. J. Thompson (Chester-le-Street), Mr. W. Charlton (Crawcrook), Mr. J. Davidson (Corbridge), and Mr. R. Shield (Swalwell).

Victoria and Albert Museum.

The Victoria and Albert Museum has recently acquired a valuable collection of decorative wood-carving, numbering upwards of 350 examples, which was formed during the course of many years by Sir Charles Allom, and has now been presented by him and by Lady Allom, as a memorial of their son, Lieut. Cedric Allom, Royal Field Artillery, who died of wounds at Ypres, on October 20, 1917.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons	Bricklayers.	Carpenters, Joiners.	Plasterers	Slaters.	Plumbers	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Bath	1/5	1/5	1/5	1/5	1/5	1/5	1/5			1/0½
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Birkenhead	1/10	1/10	1/10	1/10	1/10	1/10	1/10			1/0½
Birmingham	1/8	1/8	1/8	1/8	1/8	1/9	1/8			1/3
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Bolton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Bournemouth	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Bradford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Brighton	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Burnley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/3
Burton-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Bury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Cambridge	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Cardiff	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5			1/0½
Cheltenham	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Chesterfield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Colchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Coventry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Crewe	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Doncaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Dudley	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
E. Glam./Mon. Vall.	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Exeter	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Folkestone	1/5	1/5	1/5	1/5	1/5	1/5	1/4			1/0½
Gloucester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Grantham	1/8	1/8	1/8	1/8	1/8	1/8½	1/7			1/3
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Grimsby	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Guildford	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Hartlepools	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Hastings	1/5	1/5	1/5	1/5	1/5	1/5	1/4			1/0½
Hereford	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Hull	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Ipswich	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Leamington Spa	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Leicester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Lichfield	1/8	1/10	1/10	1/10	1/10	1/10	1/10			1/3
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Liverpool	1/8	1/8	1/8	1/8	1/8	1/8½	1/7			1/3
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
London	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Loughborough	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Luton	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Maidstone	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5			1/0½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5			1/1½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
St. Albans	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
St. Helen's	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Stoke-on Trent	1/8	1/8	1/8	1/8	1/8	1/9	1/0			1/0½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4			1/2
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4			1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/3
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/3
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/3
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/3
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8			1/2
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½			1/2

(For rates of wages in the Building Trade in Scotland, see page 890.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

DECEMBER 9.—**Aberystwyth.**—PREMISES.—For erection of premises in the Terrace-road on sites of Nos. 43 and 45, now in occupation of Mr. J. O. Williams. Mr. H. M. James, architect and surveyor, Santa Fe, Powell-street, Aberystwyth.

DECEMBER 9.—**New Swannington.**—SCHOOL.—Erection of New Swannington Council School, for the Leicester C.C. Architect, County Education Office, Grey Friars, Leicester. Deposit £2 2s.

DECEMBER 9.—**Tadcaster.**—GATES, &c.—Providing and fixing gates and fencing on the following building sites: Allerton Bywater, Kippax, Micklefield, and Swillington, for the R.D.C. Messrs. Jones & Stocks, architects, Prudential Buildings, Leeds.

DECEMBER 9.—**Tilbury.**—HOUSES.—Erection of 42 houses in the South Ward, for the U.D.C. Mr. A. W. Buckner, Clerk, Council Offices, Tilbury.

✱ DECEMBER 11.—**Birmingham.**—HOUSES.—Erection of 68 houses in Ward End Park-road, Washwood Heath, under Contracts Nos. 98 and 99, and for 143 houses on the Billesley House Estate, Yardley Wood, under Contracts Nos. 100, 101, 102 and 103, for the Public Works and Town-Planning Committee of the City of Birmingham. Mr. Herbert H. Humphries, M.Inst.C.E., Engineer and Surveyor, The Council House, Birmingham.

DECEMBER 11.—**Bridgwater.**—PAINTING, &c.—For (*a*) painting teacher's house at Eastover School; (*b*) new flooring at Albert-street Schools; and (*c*) reconstruction of back buildings, Moat-lane Cottages, for the T.C. Borough Surveyor. Municipal Buildings, Bridgwater.

DECEMBER 11.—**Dewsbury.**—ADDITION.—Erection of treatment centre at the General Infirmary. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

DECEMBER 11.—**Glasgow.**—HOUSE.—Erection of a doctor's house at Robroyston Hospital, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

DECEMBER 11.—**Gleneagles.**—PLUMBER AND PLASTER WORK.—For (*a*) Plumber work, (*b*) plaster work, at Gleneagles Hotel, for the Caledonian Railway Co. Mr. Matthew Adam, architect, 160, Hope-street, Glasgow. Deposit £2 2s.

DECEMBER 11.—**Royston.**—HOUSES.—Erection of 12 houses off Station-road, Royston, for the U.D.C., and for road making and the laying of 9 in. pipe sewer. Messrs. Dyson, Cawthorne & Coles, architects, 10, Regent-street, Barnsley. Deposit £1 1s.

DECEMBER 11.—**Saltash.**—ALTERATIONS.—For structural alterations, new north wall and new roof, at the Guildhall. Borough Surveyor, Saltash.

DECEMBER 11.—**Scarborough.**—HOUSES.—Erection of twelve houses, for the T.C. Mr. H. W. Smith, Borough Engineer, Town Hall, Scarborough. Deposit £1.

DECEMBER 11.—**Warrington.**—PUMP HOUSE.—Erection of feed pump house at electricity works, Mowley, for the T.C. Mr F. V. L. Mathias, Borough Electrical Engineer, Electricity Works, Warrington. Deposit £1 1s.

DECEMBER 11.—**Wigan.**—HOUSES.—Erection of fifty houses on the Ridyard site, in lots of eight, eight, eight, twelve and fourteen, in accordance with specification and ¼-in. scale plans. Mr. R. B. Donald, M.Inst.C.E. Borough Engineer, Municipal Buildings, Library-street, Wigan. Deposit £2 2s.

DECEMBER 12.—**Douglas.**—BRIDGE.—Taking down of the present stone arch bridge, and construction of masonry and concrete work for the new bridge, for the T.C. Mr. Jos. E. Teare, surveyor, 46, Athol-street, Douglas.

DECEMBER 12.—**Farnham.**—HOUSES.—Erection of 10 houses at Weybourne, for the U.D.C. Mr. J. W. Wright, Clerk, Council Offices, Farnham. Deposit £2 2s.

DECEMBER 12.—**Mullingar.**—HOUSES.—Erection of 12 workmen's houses, for the Town Commissioners. Mr. P. J. O'Loughlin, architect, The Courthouse, Athlone.

✱ DECEMBER 13.—**Cardiff.**—HOUSES.—Erection of a limited number of houses at Ely, for the Corporation of the City of Cardiff. The Architect, City Hall, Cardiff. Deposit £2 2s.

✱ DECEMBER 14.—**Bermondsey.**—REDECORATIONS.—Internal redecoration of six of the cottages, Shirley Schools, Wickham-road, Shirley, near Croydon, for the Guardians of the Poor of the Parish of Bermondsey. The Clerk, 283, Tooley-street, S.E.1. Deposit £5 Bank of England Note.

DECEMBER 14.—**Exeter.**—FLATS.—(1) Demolition of buildings and clearing site, (2) drainage, and (3) erection of flats in Coombe-street, for the T.C. City Architect, Exeter. Deposit £1.

DECEMBER 14.—**London, S.E.**—CLEANING AND PAINTING.—Internal cleaning and painting works, &c., at the Hospital, East Dulwich-grove, S.E., for the Guardians of the Southwark Union. Guardians' Architects, Messrs. A. Saxon, Snell & Phillips, 9, Bentinck-street, Manchester-square, W.1, from December 1 to 6. Deposit £2.

DECEMBER 14.—**Margate.**—ALTERATIONS.—Builders' work in connection with alterations and additions to Westbrook lavatories, for the T.C. Borough Engineer, 13, Grosvenor-place, Margate.

DECEMBER 14.—**Salford.**—GARAGE.—Erection of a garage at Wilburn-street Depot, for the T.C. Borough Engineer, Town Hall Salford.

DECEMBER 15.—**Birkenhead.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Birkenhead, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

DECEMBER 15.—**Brighton.**—SCHOOL.—Erection of a school of two departments on a site adjoining the northern boundary of the Borough in Loder-road, Brighton, for the Education Committee of the County Borough of Brighton. Messrs. T. Simpson & Son, 16, Ship-street, Brighton.

DECEMBER 15.—**Bristol.**—HOUSES.—Erection of 52 houses at St. John's-lane housing site, Bedminster, and 6 houses at Fishpool housing site, for the T.C. Mr. Lessel S. McKenzie, City Engineer, 51, Prince-street, Bristol. Deposit £1.

✱ DECEMBER 15.—**Crompton, near Oldham.**—HOUSES.—Erection of 20 additional houses (4 types) on the Crompton Housing Site, for the U.D.C. Surveyor's Office, Town Hall, Shaw. Deposit £2.

DECEMBER 15.—**Hertford.**—STAND.—Provision and erection of a sectional stand and other accommodation to seat 400 people. Mr. H. J. Gray, "Salisbury Arms" Hotel, Hertford.

DECEMBER 16.—**Harrow-on-the-Hill.**—SWIMMING BATH, &c.—Construction of open-air swimming bath, conveniences, dressing sheds, &c., for the U.D.C. Mr. Percy Bennetts, Surveyor, Council Offices, Harrow. Deposit £5.

DECEMBER 16.—**Methley.**—HOUSES.—Erection of 12 Class "A" State-aided houses in blocks of four, for the U.D.C. Mr. Thomas Thompson, surveyor, Red House, Methley.

DECEMBER 18.—**Croydon.**—EXTENSION.—Extension of the present general stores at the Electricity Works, Factory-lane, for the T.C. Engineer, Electricity Works, Croydon.

DECEMBER 18.—**Edinburgh.**—HOUSES.—Erection of 36 three-story tenement houses at Wardie, for the T.C. Messrs. Fairbairn, Lightbody & Cownie, Surveyors, 53, Queen-street, Edinburgh.

DECEMBER 18.—**Hull.**—HOUSES.—Erection of 50 houses on the Cottingham-road estate, and 74 houses on the Hessle-road estate, for the T.C. City Architect, Hull.

DECEMBER 18.—**Hull.**—TELEPHONE EXCHANGE.—Erection of an automatic telephone exchange, Holderness-road, for the T.C. City Architect, Town Hall, Hull. Deposit £2 2s.

DECEMBER 18.—**London.**—SWIMMING BATHS.—Construction (in reinforced concrete) of open-air swimming baths at Highbury Fields and Southwark Park, and a swimming pool at Peckham Rye, for the L.C.C. Chief Officer, Parks Department, County Hall, Westminster Bridge, S.E.1.

DECEMBER 18.—**Rhymney.**—HOUSES.—For the erection of ten houses, for the Rhymney U.D.C., at Nant-y-Melin site. Mr. A. F. Webb, M.S.A., Tredegar Chambers, Blackwood, Mon.

DECEMBER 19.—**Altham.**—TELEPHONE EXCHANGE.—Erection of a temporary telephone exchange at Altham, Kent, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

DECEMBER 19.—**Conisborough.**—HOUSES.—(*a*) The erection of 22 non-parlour type houses, semi-detached, Type 8 A, in 1 to 11 blocks; (*b*) the erection of eight parlour type houses, in blocks of four, Type 9 A. Contractors may tender for one or more blocks or the whole of the 30 houses, for the U.D.C. Mr. H. Thirlwall, Surveyor, Council Offices, Conisborough, via Rotherham.

DECEMBER 19.—**Glasgow.**—SUB-STATION.—Erection of a new sub-station at Bearsden, for the T.C. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

DECEMBER 19.—**London.**—GARAGE.—Construction of motor garage, Drayton-gardens, S.W. Messrs. Waterer & Sons, 23, Westminster Palace-gardens, S.W. Deposit £2 2s.

DECEMBER 19.—**Rochdale.**—BOWL STORE.—Erection of bowl store and shelter at Falinge Park, for the T.C. Borough Surveyor, Town Hall, Rochdale.

DECEMBER 20.—**Athlone.**—HOUSES.—Erection of 11 houses (two blocks of 4 houses and one block of 3 houses) and the construction of roads, sewers and water main, at the Woollen Mills Field, for the U.D.C. Mr. T. F. McNamara, architect, 192, Great Brunswick-street, Dublin.

✱ DECEMBER 21.—**Croydon.**—CONVENIENCE.—Construction of an underground convenience for men and women at the junction of Tamworth-road with Waddon New-road, West Croydon, for the Borough Council. Borough Engineer, Town Hall, Croydon. Deposit one guinea.

DECEMBER 22.—**Dundee.**—WAR MEMORIAL.—Erection of monument on the Law, for the Dundee War Committee. Mr. Wm. H. Blyth Martin, Clerk to the Committee, Town House, Dundee.

✱ DECEMBER 29.—**Essex.**—HOUSES.—Erection of 222 houses and flats on the Becontree Housing Estate, near Dagenham, Essex, for Messrs. C. J. Wills & Sons, Ltd., the general contractors for the development of the above estate, are authorised by the London County Council to invite the above tenders. Messrs. C. J. Wills & Sons, Ltd., Contractors' Office, Becontree Housing Estate, Chadwell Heath, Essex. Deposit £5 5s.

DECEMBER 31.—**Cape Town.**—UNIVERSITY.—University of Cape Town; New University Buildings. Preliminary notice. First portion of the works to be contracted for will comprise residences for 200 men and 200 women, with retaining walls, &c. Particulars: High Commissioner for the Union of South Africa, Trafalgar-square, London, W.C. Deposit £15, must be made with the application.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Bricklayers' Labourers.	Plasterers'
Aberdeen	1/7	1/10½	1/7	1/7½	1/8	1/9	1/7	1/2 to 1/4	
Airdrie	1/8	1/8	1/8	1/8	1/8	1/8	—	1/3	
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2	
Arbroath	1/7	1/7	1/7	1/7	1/7	1/7	1/8	1/1	
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Bathgate	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/7	—	
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/2	
Coatbridge	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Dumfries	1/6	1/6	1/6	1/6	1/6	1/8	1/8	1/2	1/2½ 1/3½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Dunfermline	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/2	
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Falkirk	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	—	1/1½	
Galashiels	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½	
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Greenock	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/1 to 1/3	
Hamilton	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Hawick	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Helensburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Inverness	1/6½	—	1/6	1/7	1/6½	1/7	1/6	10d. to 1/2	
Kilmarnock	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Kirkcaldy	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/2	
Kirkwall	1/5	1/5	1/4	1/7	1/5	1/5	1/4	1/2	
Lanark	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2	
Motherwell	1/8	1/8	1/8	1/8	1/8	1/8	—	1/3	
Perth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/2	
Stirling	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Stirlingshire (Eastern District)	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	
Wishaw	1/8	1/8	1/8	1/8	1/8	1/8	1/9	1/3	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 889.

JANUARY 1.—**Margate.**—BATHING PAVILION.—Erection of bathing pavilion, &c., on Marine-terrace, for the T.C. Borough Engineer, 13, Grosvenor-place, Margate. Deposit £5.

✱JANUARY 3.—**Mansfield.**—HOUSES.—Erection of 24 houses, type "A," for the Town Council. Mr. Waude Thompson, A.M.Inst.C.E., Borough Engineer and Surveyor, Market-street, Mansfield, endorsed "Housing Scheme, No. 2, Bull Farm Site."

NO DATE.—**Ilkley.**—HOUSES.—Erection of a pair of semi-detached houses at Victoria-avenue, Ilkley. Messrs. Moore & Crabtree, Queensgate Chambers Bradford.

NO DATE.—**Pontypridd.**—PUBLIC HALL.—Erection of public hall at Treforest, Pontypridd, for the Rev. Canon McManus. Messrs. Thomas & Morgan & Partners, architects and civil engineers, Pontypridd. Deposit £5.

NO DATE.—**Shipley.**—HOUSES.—Erection of eight pairs of semi-detached houses, Shipley Fields Estate. Mr. Ernest Dawson, architect, Parkinson's Chambers, Hustlergate, Bradford. Deposit £2 2s.

FURNITURE, MATERIALS, etc.

DECEMBER 9.—**Maidstone.**—MATERIALS.—Supply of road materials to the Kent C.C. Mr. H. T. Chapman, County Surveyor, Maidstone.

DECEMBER 9.—**Roumania.**—TOOLS.—Supply to the Roumanian Railroad Administration of 1,442 bits (assorted centre and gimlet) and 23 screw augers. Dept. of Overseas Trade, 35, Old Queen-street, S.W.

DECEMBER 11.—**Manchester.**—ROAD MATERIALS.—Supply of pitch and creosote oil, and 30,000 Karri wood paving blocks, to the Paving Committee of the T.C. Paving Department, Town Hall, Manchester.

DECEMBER 11.—**Margate.**—ROAD MATERIALS.—Supply of road materials to the T.C. Mr. Ernest A. Borg, Borough Surveyor, 13, Grosvenor-place, Margate.

DECEMBER 11.—**Middleton.**—Supply of road materials, &c., to the T.C. Borough Engineer, Town Hall, Middleton.

DECEMBER 11.—**Northallerton.**—ROAD MATERIALS.—Supply to the North Riding of Yorkshire County Council of ¼ in. screened whinstone chippings. County Surveyor, County Hall, Northallerton.

DECEMBER 11.—**Warrington.**—KERBING.—Supply of 2,000 lin. yards of 6 in. by 12 in. dressed and jointed kerbs, and 600 lin. yards of 4 in. by 12 in. dressed and jointed kerbs, for the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

DECEMBER 11.—**Warrington.**—REINFORCEMENT.—Supply of 1,600 square yards of steel reinforcement for road work, to the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

DECEMBER 12.—**Manchester.**—PITCH, &C.—Supply to the Tramways Committee of (*a*) pitch, for paving purposes, (*b*) creosote oil, for paving purposes. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

DECEMBER 12.—**Roumania.**—SHOVELS.—Supply to the Roumanian Railroad Administration of 22,500 steel pointed mouth shovels and 1,500 steel coal shovels. Dept. of Overseas Trade, 35, Old Queen-street, S.W.

DECEMBER 13.—**Macclesfield.**—STONE.—Supply to the T.C. of 8,000 tons of broken grit stone. Mr. J. E. Edmundson, Sewage Manager, Prestbury.

DECEMBER 15.—**Dublin.**—BUILDERS' IRONMONGERY.—Supply of builders' ironmongery in the Dublin District for the Commissioners of Public Works in Ireland. Mr. J. J. Harley, Secretary, Office of Public Works, Dublin. Deposit £1.

DECEMBER 16.—**Aberdeen.**—TIMBER.—Hire to the Highland and Agricultural Society of Scotland of timber to be used in the erection of the Society's show to be held at Inverness on 17th to 20th July. Mr. John Reid, 55, Blenheim-place, Aberdeen.

DECEMBER 16.—**Hatfield.**—MATERIALS.—Supply of road materials to the Hertfordshire C.C. Lt.-Col. A. E. Prescott, County Surveyor, Hatfield.

DECEMBER 16.—**Smethwick.**—STORES.—Supply of road and other materials to the T.C. Mr. A. Hosken, Borough Engineer, Smethwick.

DECEMBER 16.—**Steyning West.**—MATERIALS.—Supply of 800 tons of 2½ in. granite; 550 tons of ¾ in. granite chippings; and 300 tons of 1½ in. stone, to the R.D.C. Mr. Frederick Slaughter, Surveyor, Jarvis-lane, Steyning.

DECEMBER 18.—**Reading.**—ROAD MATERIALS.—Supply of road materials to the Berkshire C.C. Lt.-Col. J. F. Hawkins, County Surveyor, Shire Hall, Reading.

DECEMBER 20.—**Manchester.**—FIRE CLAY, BRICKS, ETC.—Supply of fire clay, bricks and tiles, and silica fire clay, to the Gas Dept. Mr. Godfrey W. Kaye, Secretary, Town Hall, Manchester. Deposit £1 1s.

DECEMBER 29.—**Wandsworth.**—MATERIALS.—Supply of road and other materials to the B.C. Mr. D. A. Nicholl, Town Clerk, Council House, Wandsworth, S.W.18.

JANUARY 3.—**Peterborough.**—MATERIALS.—Supply of road materials to the C.C. Mr. H. Russell, County Surveyor, 45, Priestgate, Peterborough.

JANUARY 31.—**Siam.**—RAILWAY STORES.—Supply to the Department of State Railways, Siam, of railway store materials. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W.1. Charge £2 12s.

NO DATE.—**Ham.**—MATERIALS.—Supply to the U.D.C. of stoneware pipes, iron pipes, cement, bricks, concrete manhole tubes, ironwork, timber, tarpaulins, barrows, tools, &c., Mr. W. R. Collins, Surveyor, Council Offices, Ham, Surrey.

ENGINEERING, IRON AND STEEL.

DECEMBER 9.—**Southgate.**—REFUSE DESTRUCTOR.—Extension of the refuse destructor, Barrowell-green, Winchmore-hill, for the U.D.C. Mr. R. Phillips, Surveyor, Southgate Town Hall, Palmers Green, N. 13.

DECEMBER 11.—**Carlisle.**—BOILER.—Providing and fixing a new boiler and connections at the Cemetery Chapel, Dalston-road, for the Burials Committee. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

DECEMBER 11.—**Kirkcaldy.**—PIPES.—Providing 2,100 tons of dry sand cast-iron pipes and special castings, 14 ins. in diameter, to the Kirkcaldy and Dysart Waterworks. Messrs. J. & A. Leslie & Reid, C.E., 72A, George-street, Edinburgh. Deposit £1.

DECEMBER 12.—**Edinburgh.**—TRAMWAYS MATERIAL.—Supply of 21,500 fishplates, bolts and nuts, and 12,500 tie-bars for the Tramways Dept. Tramways Manager, 2, St. James's-square, Edinburgh.

DECEMBER 12.—**London.**—PNEUMATIC PLANT.—Supply of pneumatic plant to the Bengal-Nagpur Railway Co. Sec., 132, Gresham House, E.C. Charge £1 1s.

DECEMBER 12.—**London.**—STEEL.—Supply to the Madras & Southern Mahratta Railway Co., of (1) 800¼ tons steel material (sections and plates); (2) 238 tons spring steel (flat and round); (3) 84 tons metals (aluminium, antimony, brass, copper, lead, zinc). Secretary, 25, Buckingham Palace-road, Westminster, S.W.1. Charge £1 1s. each.

DECEMBER 12.—**New Zealand.**—PLATE GIRDERS.—Supply to the Public Works Department of plate girders, for the Lawrence-Roxburgh and the Taneatue Railways. Department of Overseas Trade, 35, Old Queen-street, S.W.

DECEMBER 12.—**Poplar.**—LAUNDRY MACHINERY.—Provision for the B.C. of laundry machinery for Empson-street Laundry. Chief Baths Superintendent at Bow Baths, Roman-road, Bow, E.3.

DECEMBER 13.—**Manchester.**—ELECTRICAL INSTALLATIONS.—Electric lighting installations at the Queen-street, Vine-street, and Nelson-street Municipal Schools, for the T.C. Education Offices, Deansgate, Manchester. Deposit £1 1s.

DECEMBER 14.—**Aberdeen.**—PIPES, &C.—Supply of 1½ miles of 4 ft. diameter pipes and specials of the following alternative types, viz., (*a*) cast-iron; (*b*) mild steel (lapwelded). Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

DECEMBER 14.—**London.**—GIRDER BRIDGES.—Supply to the High Commissioner for India of girder bridges, 100 ft. spans. Director-General, India Store Department, Branch No. 12, Belvedere-road, Lambeth, S.E.1.

DECEMBER 15.—**London.**—STEELWORK.—Supply of steelwork for paint and electrical shop (Trichinopoly Workshops Scheme), for the South Indian Railway Co. Mr. A. Muirhead, Managing Director, 91, Petty France, S.W.1. Charge £1.

DECEMBER 16.—**Guernsey.**—CONCRETE DECK.—Removal of the timber deck at the North (White Rock) Pier Head, and the construction of a new deck in reinforced concrete on the Considere System, at St. Peter Port. Mr. J. H. Duquemin, States Engineer, States Office, Guernsey.

DECEMBER 18.—**Hitchin.**—TANK.—For a reinforced concrete water tank of 390,000 gallons capacity, with 12 in. cast-iron connections, for the U.D.C. Mr. W. Onslow Times, Clerk, Town Hall, Hitchin. Deposit £2 2s.

DECEMBER 18.—**Victoria.**—COAL HANDLING PLANT.—For coal handling plant for the Morwell Power scheme, for the Victorian State Electricity Commission. Agent-General for Victoria, Melbourne-place, Strand, W.C. 2. Deposit £2 2s.

DECEMBER 19.—**London.**—RAILWAY MATERIALS.—Supply of brake fittings to High Commissioner for India. Director-General, India Store Dept., Belvedere-road, S.E.

DECEMBER 19.—**Southwell.**—WATER PIPES.—Supply to the R.D.C. of 800 tons of cast-iron pipes and specials. Messrs. Sands & Walker, Milton-chambers, Milton-street, Nottingham. Deposit £3 3s.

DECEMBER 20.—**Australia.**—BORING MACHINE.—Supply to the Victorian Government Railways Commissioners of horizontal boring machine. Department of Overseas Trade, 35, Old Queen-street, S.W.

DECEMBER 21.—**Bolton-upon-Dearne.**—LIGHT RAILWAYS.—Construction and equipment of light railways, for the Dearne District Light Railways Joint Committee. Mr. J. Ledger Hawksworth, Clerk, Council Offices, Bolton-upon-Dearne. Deposit £5.

DECEMBER 21.—**Burley-in-Wharfedale.**—LIGHTING.—Relighting of Wesleyan Church, for the Trustees. Mr. F. Thorne, 9, Spring-gardens, Burley-in-Wharfedale.

DECEMBER 22.—**London.**—MATERIALS.—Supply of (a) steam piping, &c., (b) plate and sheet glass, &c., to the Bombay, Baroda & Central India Railway Co. Mr. S. G. S. Young, Secretary, 91, Petty France, S.W. Charge £1 for (a), and 10s. for (b).

DECEMBER 29.—**London.**—RAILWAY MATERIALS.—Supply to the High Commissioner for India of underframes and body ironwork for railway carriages. Director-General, India Store Dept., Belvedere-road, S.E.

DECEMBER 31.—**Argentine.**—RAILWAY.—Construction and equipment of 650 and 185 kilometres of one metre gauge railway as well as for the financing of the same, for the State Railways of the Province of Buenos Aires (Argentine Republic). Argentine Legation, Aldford House, 26, Park-lane, W. 1.

JANUARY 6.—**Glasgow.**—BRIDGE.—Construction of ferro-concrete bridge over the Clyde at Oswald-street. Office of Public Works, 64, Cochrane-street, Glasgow.

JANUARY 31.—**Australia.**—ELECTRICAL PLANT.—Supply of steam turbine and other plant to the Morwell Power Station, for the State Electricity Commission. Agent-General for Victoria, Melbourne-place, Strand, W.C. Deposit £2 2s.

FEBRUARY 1.—**Auckland.**—ELECTRIC CRANES.—For the supply of twelve five-ton (alternatively three-ton) semi-portal balanced jib electric quay cranes, four five-ton (alternatively three-ton) balanced jib electric roof cranes, and six one-ton electric monorail cranes, for Auckland Harbour Board. Messrs. W. & A. McArthur, Ltd., 18-19, Silk-street, Cripplegate, London, E.C.2. Deposit £2 2s.

NO DATE.—**Warrington.**—FITTINGS.—For fittings to supply electric light to the laundry at Alkin-street Hospital. Mr. G. W. N. Joseph, Medical Officer of Health, Health Dept., Warrington.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 9.—**Basford.**—SEWERS.—For laying about 800 yards of 9 in. stoneware sewers, &c. Mr. S. Maylan, Surveyor, Public Offices, Basford. Deposit £2 2s.

DECEMBER 9.—**Bexley.**—ROADS.—Widening and improvement of Vicarage-road, for the U.D.C. Mr. W. T. Howse, Surveyor, Council Offices, Bexley Heath, Kent. Deposit £3 3s.

DECEMBER 9.—**Tadcaster.**—DRAINS.—Construction of land tile and rubble drains at Swillington housing site, for the R.D.C. Messrs. Jones & Stocks, Prudential Buildings, Leeds.

DECEMBER 9.—**York.**—ROADS.—Making up Hawthorn-street (part), for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

DECEMBER 11.—**Bolton.**—BOREHOLE.—Sinking of a borehole and construction of other works at Belmont, for the T.C. Mr. John K. Swales, Waterworks Engineer, St. George's-street, Bolton. Deposit £2 2s.

DECEMBER 11.—**Edmonton.**—SEWERS, &C.—For sewerage and service drainage works, for the U.D.C. Mr. C. Brown, Surveyor, Town Hall, Edmonton.

DECEMBER 11.—**Gleneagles.**—SEWAGE WORKS.—Sewage purification at Gleneagles Hotel, for the Caledonian Railway Co. Messrs. Thomson & Scott, 20, Melville-street, Edinburgh. Deposit £2 2s.

DECEMBER 11.—**Hull.**—TRAMWAY TRACK.—Laying about 420 lin. yards double track tramway in Osborne-street, for the T.C. Mr. F. W. Bricknell, City Engineer, Guildhall, Hull.

DECEMBER 11.—**London, W.8.**—SEWERAGE.—Construction of a number of manholes, together with incidental means of ventilation on certain dead ends of sewers in the Borough, for the Royal Borough. Borough Engineer and Surveyor, Town Hall, Kensington, W.8, endorsed "Tender for Sewer Works."

DECEMBER 11.—**Manchester.**—ROADS.—Making-up Highfield-road, East-road, and Barlow Moor-road, for the T.C. Paving, &c., Department (District Surveyor's Office), Town Hall, Manchester. Deposit £1 1s.

DECEMBER 11.—**Mountain Ash.**—BOWLING GREEN, &C.—Construction of a bowling-green and pavilion at Abercynon, for the U.D.C. Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

DECEMBER 11.—**Waltham Cross.**—ROADS.—For widening of Windmill-hill, for the U.D.C. Mr. W. C. Holloway, Surveyor, Town Hall, Waltham Abbey.

DECEMBER 11.—**Wandsworth.**—ROADS.—For paving Glencairn-road, Hilldown-road, and part of Cricklade-avenue, Streatham; Englewood-road, Clapham; Wincanton-road, Southfields; and part of Ellerton-road, for the B.C. Mr. P. Dodd, Balham High-road, S.W.17. Deposit £1 1s.

DECEMBER 12.—**Bushey.**—TENNIS COURTS.—Construction of two hard tennis courts, in Kentish rag tarpaving, at the King George Recreation Grounds, for the U.D.C. Mr. Ernest E. Ryder, Surveyor, Council Offices, Bushey.

DECEMBER 12.—**Easington.**—ROADS.—Making-up road at Murton, for the R.D.C. Mr. R. Unwin Harper, surveyor, Castle Eden. Deposit £2.

DECEMBER 12.—**Leeds.**—ROADS.—For making up a number of private streets and roads on the Wyther Housing Estate. Highways Dept., 1, Swinegate, Leeds. Deposit £1 1s.

DECEMBER 12.—**Southall-Norwood.**—ROADS.—(*a*) Extension of Grosvenor-road, (*b*) resurfacing Featherstone road, and parts of Dudley-road and Spencer-street, (*c*) clearing out pond at Norwood Green. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

DECEMBER 12.—**St. Albans.**—SEWERS.—Construction of stoneware pipe sewers, &c., for the T.C. Messrs. Howard Humphreys & Sons, 28, Victoria-street, Westminster, S.W. Deposit £1 1s.

DECEMBER 13.—**Birmingham.**—ROADS.—Works in connection with the widening of Stratford-road, Hall Green, for the T.C. Mr. Herbert H. Humphries, City Engineer, The Council House, Birmingham.

DECEMBER 13.—**Carlisle.**—SEWER.—Construction of 335 yards of 9 in. stoneware sewer, &c., for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit 10s.

DECEMBER 13.—**Kilmarnock.**—ROADS.—Formation of roads and sewers in connection with Scott-road housing scheme, for the T.C. Burgh Surveyor, Council Chambers, Kilmarnock.

DECEMBER 14.—**Aberdeen.**—WATER MAINS.—Laying of 1½ miles of 4 ft. piping and ancillary works between West Cults and Pitfodels, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

DECEMBER 14.—**Margate.**—SANITARY.—Supply and fixing of sanitary fittings at Westbrook lavatories. Borough Engineer, 13, Grosvenor-place, Margate.

DECEMBER 15.—**Barking.**—ROADS.—Widening and draining Longbridge-road and Upney-lane, for the U.D.C. Clock House Chambers, East-street, Barking.

DECEMBER 15.—**Barnet.**—ROADS.—Making-up part of Hallwick-road, for the T.C. Mr. F. P. Kindell, Surveyor, Council Offices, Friern Barnet-road, N. Deposit £2 2s.

DECEMBER 15.—**Dublin.**—PLUMBING, &C.—For plumbing and gasfitting works and supplies in the Dublin District, for the Commissioners of Public Works, Ireland. Mr. J. J. Hanly, Sec., Office of Public Works, Dublin. Deposit £1.

DECEMBER 15.—**Paisley.**—SEWAGE WORKS.—Construction of three filter beds, each 90 ft. by 60 ft., at Stanely High Level Filters, for the T.C. Mr. James Lee, C.E., 13, Gilmour-street, Paisley. Deposit £5.

DECEMBER 16.—**Birmingham.**—SEWER.—For carrying out sewer work between Queen's-ride, Pershore-road, and Twyning-road, &c., for the T.C. Mr. H. H. Humphries, City Engineer, The Council House, Birmingham. Deposit £3.

DECEMBER 16.—**Bootle.**—ROADS.—Widening and reconstruction of Watts-lane and Moss-lane, Orrell, for the T.C. Borough Engineer, Town Hall, Bootle. Deposit £1 1s.

DECEMBER 18.—**Hendon.**—SURFACE WATER DRAINS, &c.—Reconstruction of Station-road, Hendon, within the district. The works comprise the following, or thereabouts:—1,053 yds. lin. 15 in., 12 in. and 9 in. pipe surface water drain with manholes and gullies; 970 yds. lin. 6 in. by 12 in. granite kerb, 11,500 yds. super; creosoted deal block paving on reinforced concrete, 4,000 yds. super; new 2 in. artificial stone paving, together with all other works in connection therewith. Mr. A. O. Knight, A.M.I.C.E., Engineer and Surveyor to the Council, Town Hall, Hendon, N.W. 4. Deposit 10 guineas.

DECEMBER 18.—**Kempston.**—SEWAGE WORKS.—Alterations of and additions to (1) single ram pump and gear with oil engine to lift 4,000 gallons of sludge per hour, with piping, &c.; (2) emptying and refilling filter beds; (3) distributing apparatus, consisting of sprinklers, &c., for the U.D.C. Mr. H. Nelson Tebbs, Clerk, 2, Tavistock-street, Bedford. Deposit £3 3s.

DECEMBER 18.—**Manchester.**—DRAINAGE.—Construction of main drainage work, No. 4, Upper Mosslane and Gt. Ancoats-street, for the T.C. City Engineer, Town Hall, Manchester. Deposit £10 10s.

DECEMBER 18.—**Tipton.**—ROADS, &c.—(1) New road, 650 yards long by 14 yds. wide, &c.; (2) construction of stoneware and cast-iron pipe sewers in the Summerhill and Princes End districts; (3) construction of stoneware pipe sewers in the Gospel Oak and Ockerhill districts, for the U.D.C. Mr. Wm. H. Jukes, M.E., Surveyor, Public Offices, Tipton. Deposit £3 3s.

DECEMBER 18.—**Westbury.**—SEWAGE DISPOSAL.—Construction of about 8,700 yards of stoneware pipe sewers, &c., and the erection of a 73 ft. diam. filter bed, for the U.D.C. Messrs. W. H. Radford & Son, Albion Chambers, King-street, Nottingham. Deposit £10 10s.

DECEMBER 19.—**Birmingham.**—STORM WATER BASIN.—Construction of additional storm water basin at Nechells Outfall Works, for the Birmingham Tame and Rea District Drainage Board. Mr. John D. Watson, Engineer, The Rookery, Erdington Park, Birmingham.

DECEMBER 19.—**Epsom.**—SEWAGE WORKS.—Constructing (1) sewage tanks, sewers, &c., and for (2) additions to the pumping station at their sewage works, Hook-road, Epsom, for the U.D.C. Separate tenders will be required for these works. Mr. E. R. Capon, Engineer and Surveyor, Council Offices, 33, Church-street, Epsom. Deposit £5 5s., endorsed (1) "Sewage Disposal Works," (2) "Additions to Engine Room," respectively.

DECEMBER 19.—**Southwell.**—WATERWORKS.—Supply and laying of about 14 miles of water mains, erection of pumping station, reservoir, &c., for parishes of Oxton, Epplestone, &c., for the R.D.C. Messrs Sands & Walker, Milton Chambers, Milton-street, Nottingham.

DECEMBER 20.—**Southport.**—ROADS.—Making good Chesterfield-road and Sandringham-road, Ainsdale, for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £2 2s.

DECEMBER 26.—**Batley.**—ROADS.—Making-up of Primrose-hill, for the T.C. Mr. H. L. Hall, Borough Engineer, Batley.

JANUARY 1.—**Littleton.**—SEWERS.—Construction of about 35 yds. of twin 96-in. dia. reinforced concrete conduits and 3,900 lin. yds. of 72-in. reinforced concrete conduit from Littleton to Kempton; also the laying only of 2,000 yds. of 48-in. dia. cast-iron pipe from Kempton to Hampton, together with a concrete intake channel to the Staines Aqueduct, &c., for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. 1. Deposit £20.

JANUARY 8.—**Argentine.**—SEWERAGE SYSTEM.—Construction of a sewerage system at Mendoza, for the Department of Sanitary Works, Argentine. Dept. of Overseas Trade, 35, Old Queen-street, S.W.

★JANUARY 9.—**London.**—SEWERS.—Construction in tunnel of an 11 ft. 4 in. internal diameter sewer in iron of a total length of about 1 3-8 miles, together with outlet to the River Thames, weir chambers, tumbling bays, side entrances, &c., in the Metropolitan Boroughs of Lambeth, Wandsworth and Battersea. Chief Engineer of the Council, Old County Hall, Spring Gardens, S.W.1. Deposit £10.

NO DATE.—**Perth.**—ROADS.—Improvements widenings of the road bridges and corners on the main road between St. Fillans and Lochearnhead on the North side of Lochearn, for the C.C. Mr. William Kirkland, C.E., Surveyor.

NO DATE.—**Yatton.**—GAS MAIN.—Laying about 500 yards of four-inch gas main along the Claverham-road. Secretary, Yatton Gas Company, Springdale, Marzon road, Clevedon.

Competitions.

(See Competition News, page 862.)

Auction Sales, Tenders, etc.

DECEMBER 11.—**London, S.W.**—Messrs. Henry Butcher & Co. have received instructions from Messrs. Rownson, Drew & Clydesdale, Ltd., to sell, without reserve, at the Central Stores Depot, No. 1,701, Stewart's-road, Wandsworth-road, S.W., £5,000,000 to £10,000,000 deal in Government surplus stores. Auctioneers, 3–64, Chancery-lane, London, W.C.2.

★DECEMBER 12.—**London, S.W.**—Sale without reserve, at 255, Clapham-road, S.W. (close to "The Swan," Stockwell), stock of useful timber and building materials from demolition of Brockwell Hall. Auctioneers, 4, Tokenhouse Buildings, E.C.2, and 365, Norwood-road, S.E.27.

DECEMBER 12, 13, 14, AND 15.—**Gretna.**—Messrs. W. L. Tiffen & Sons will sell, by direction of the Disposal Board, at the Institute, Central-avenue, H.M. Factory, Gretna, timber building and building material (Mossband, Gretna Township, Millhill and Dornock Areas). Auctioneers, 20, Lowther-street, Carlisle.

DECEMBER 13.—**Kenton, Middlesex.**—Mr. Ernest Owers will sell at the Estate Office adjoining West Hampstead (Met.) Station, freehold site having 145 ft. frontage to Kenton-road, very suitable for shops; also 12 plots in Carlton-avenue, adjoining. Auctioneers, West Hampstead (Met.) Station, N.W.6, and at 200, Finchley-road, Golders Green.

DECEMBER 13.—**London, E.C.**—Messrs. St. Quintin, Son & Stanley will sell, by direction of the Commissioner of H.M. Woods, Forests, and Land Revenues, at Winchester House, Old Broad-street, E.C.2, freehold building site, now occupied by premises known as 110 to 116 (even), Curtain-road, and 1 to 10, Union-place, E.C. Auctioneers, 50, Threadneedle-street, E.C.

DECEMBER 13 & 14.—**Abbey Wood.**—Messrs. F. H. & C. E. Clark will sell, at King's Norton Hostels, Harrow Manor-way, Abbey Wood, a quantity of timber and building materials. Auctioneers, Beddington House, Beddington, near Croydon.

★DECEMBER 18, 19, 20.—**Brighton.**—Messrs. Parsons & Son will sell at Moulsecomb, Lewes-road, Brighton, a quantity of woodworking plant, stores and equipment, mortar mills, concrete mixers and pressers, and other miscellaneous effects. Auctioneers, 163, North-street, and 41a, Dyke-road, Brighton.

DECEMBER 19.—**London, S.W.3.**—Messrs. Goddard & Smith will sell, in the Estate Auction Hall, at their Head Offices, 22, King-street, St. James's, by order of the mortgagees, the property known as the Imperial Court Estate, Nos. 13, 15, 17, 19, 21, 23, 25, and 27, Brompton-road, block of offices, shops and showrooms. Auctioneers, 22, King-street, St. James's, S.W.

★JANUARY 4.—**London, E.**—Messrs. Toplis & Harding, will sell at Nos. 10–18, Adelina-grove, Mile End, Old Town, E., machinery and plant at Messrs. Elliott's Saw Mills, comprising 6-ton electric travelling crane, with independent motors and other useful machinery, &c. Auctioneers, 28, Old Jewry, E.C. 2.

★NO DATE.—**Newbury.**—10-h.p. electric motor, 10-in. planing machine and circular saw, by Worssam & Co. Town Clerk, Newbury Corporation, Newbury.

Public Appointments.

DECEMBER 11.—**Essex.**—Quantity Surveyor required by the C.C. for the Architect's Department. Mr. John Stuart, F.R.I.B.A., County Architect, Old Court, Springfield, Chelmsford.

PATENTS.

APPLICATIONS PUBLISHED.*

184,555.—W. Sykes: Manufacture of articles from reinforced concrete.

184,561.—L. Alwyn: Buildings.

184,565.—G. R. Hildyard: Production of imitation wood.

184,573.—J. T. McNay: Metal bonding ties for the bars of reinforced concrete structures.

184,583.—C. L. Burdick: Purification of air in buildings.

184,584.—J. E. Wallis: Building blocks.

163,722.—E. Cruize: Cranes or like lifting-devices.

184,593.—H. Chambers: Swivels, suitable for fish-hooks and dog-chains.

184,602.—J. Weiner: Devices for fixing show-tablets on a wall.

184,620.—S. G. Foster: Adjustable window screens.

184,642.—R. T. Bourn: Post office furniture.

184,655.—F. L. Keppler: Structural glass units.

184,659.—J. H. Dyer: Tanks or cisterns.

184,665.—F. Eckert: Building of hollow walls.

184,668.—S. H. Priestman and S. Prince: Grabs and excavators.

184,687.—T. Dallow: Weights for window-sashes.

184,702.—A. E. Finley and H. Green: Flushing-cisterns.

184,709.—W. Schachenmeier: Wind-bracing for bridges.

184,710.—W. A. Wilson: Casement-windows.

184,713.—S. H. Ellard and E. F. Ellard: Casement stays.

172,328.—É. E. Debongnie: Construction of arched roofs made of corrugated sheet iron.

184,736.—V. Dorph: Building walls.

184,751.—J. A. Orme and O. Searles: Log-sawing machines.

180,654.—Soc. Anon. de Constructions Mecaniques de la Savoie: Machine for manufacturing tar-macadam.

184,846.—H. Wade (Blaw-Knox Co.): Towers, poles, masts, derricks.

184,859.—W. H. Borgars: Hot and cold water supply systems.

184,880.—Plauson's (Parent Company), Ltd. (Dr. H. Plauson): Refining clay, especially china clay.

164,016.—Wirebounds Patent Co.: Machines for use in making boxes.

184,884.—W. E. Postgate: Door fastenings.

184,906.—D. Whitaker: Power-navvies and like excavating machines.

184,909.—F. Mossberg and Mossberg Pressed Steel Corporation: Beam heads.

184,910.—Durato Asbestos Flooring Co., Ltd., and A. Z. Nemeth: Roofing material or tile.

184,937.—T. Bishop: Box-making machines.

184,943.—J. S. Withers (Grand Rapids Show Case Co.): Shelving construction.

184,953.—C. R. Leech: Floor covering material.

184,967.—F. B. Dehn (National Pneumatic Co.): Automatic reversing mechanism for door-operating motors.

184,968.—F. B. Dehn (National Pneumatic Co.): Door-operating mechanism.

184,972.—K. Horiguchi: Locks.

184,999.—H. O. Ormiston: Metallic paint or coating.

185,014.—A. Bonhardi: Building-blocks.

185,018.—H. F. Gibb: Shower-bath appliance.

185,138.—W. J. Hollick: Grabs, lifting dogs, and like lifting and lowering apparatus.

185,203.—W. J. James: Wood-planing tools.

185,222.—W. E. Clifton, J. S. Ewart, and Clifton Ewart Construction Co., Ltd.: Concrete building structures.

*** All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.**

Duke's-avenue, Chiswick.

The tar-paved roadway which we illustrate, laid by Messrs. W. Shepherd & Sons, of Rochdale, fourteen years ago, is still in good condition, and has never been resurfaced, notwithstanding the heavy traffic.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

BAGSHOT.—A Ministry of Health Inquiry was recently held with reference to the Council's application for sanction to borrow £45,500 for constructing sewerage and sewage disposal works for Bagshot, Windlesham and Lightwater. A site near the eastern boundary of the Council's district has been chosen for the erection of the sewage works, which are to be of modern design, and will include balancing, detritus, sedimentation, dosing and upward flow tanks, percolating filters, primary and secondary, humus tanks, sludge drainage beds, &c.

BARGOED.—Considerable mining developments are to take place in the Cwm Bargoed Valley and large building operations will be involved and shortly be undertaken. The Powell Duffryn Coal Co., Ltd., has acquired about 1,500 acres of virgin coal and will at once develop same. There is ample surface room for the necessary building and plant housing. The undertaking has been registered as the Taff Merthyr Colliery Co., with capital of £400,000. The Brithdir bituminous vein is also to be developed in a further 600 acres by Messrs. Guest, Keen & Nettleford, and considerable surface extensions will be required at Bedlinog in the same valley.

BATH.—Plans passed by T.C.: Drainage, 38, Walcot-street; four dwelling-houses, Rockcliffe-road; five houses, St. John's-road, Bathwick; shop front, 32, Stall-street.

BEDWELLTY.—The Board of Guardians have adopted a scheme for erecting a new nursing home at a cost of £7,000 to £8,000. Application is to be made to the Ministry of Health for sanction. The Bedwellty U.D.C. has made application for sanction to spend £16,000 on the Blackwood-road scheme.

BELFORD.—Plan passed by R.D.C.: Additions, Armstrong Cottages, Bamburgh, for Mr. Paton.

BERWICK.—The T.C. has decided to guarantee a rate of 8d. in the £1 in aid of the scheme for the development of Berwick Harbour.

BIRKENHEAD.—Plans passed by T.C.: Garage and office, Kingsland-road; motor garage at 7, Rock-park; conversion of stable and coach-house into garage, 54 to 70, Slatey-road; motor garage, 53, Devonshire-road; two pairs of semi-detached houses, Park-road West.

BOURNEMOUTH.—Plans passed by T.C.: Additions, "The Wyche," St. Michael's-road, Messrs. Whittingham, Ltd.; additions, "Linden Hall," Christchurch-road, Messrs. Extons Hotels, Ltd.; lavatory, 31, Curzon-road, Mr. Chandler; additions, "Linkwood," Queen's Park-gardens, Mr. A. J. Marshall; motor house, "Wyngates," Berwick-road, Mr. J. B. Hope; shop premises, Chessel-avenue, Messrs. Reynolds & Isaacs; alterations, "Seapoint," 7, Wentworth-avenue, Mrs. W. Pearson; additions to laundry, Alma-road, Mrs. Rice Hunt; additions to house, Queen's Park-avenue, Mr. T. Wade; additions, "Manaton," Soberton-road, Dr. H. Holloway; additions, "Staffa," Nairn-road, Mr. C. G. Knight; offices and workshops, Spring-road, The National Building Guild, Ltd.; house, Talbot-road, Mr. A. Barnes; additions to house, cr. of East-avenue and Kenross-road, Mr. A. Barnes; motor house, Keswick-road, Mr. Haycock; motor house, Soberton-road, Mr. C. V. Miller; conversion into flats, "Denbigh Lodge," Surrey-road, Mrs. M. H. Bland; additions to house, Arcadia-avenue, Mr. Lock; alterations and additions, 432, Wimborne-road, Mr. H. Rigler; house, Penrith-road, Mr. H. Solomon; pair houses, Clarence Park-road, Mr. Langdown; house, Sunnyhill-road, Mr. W. Young; house, Gresham-road, Mrs. H. W. King; house, cr. Heathwood and Glenmore-roads, Rev. Webster; bungalow, Court-road, Mr. P. A. Troke; semi-bungalow, 28, Oswald-road, Mr. E. Sheppard; house, Denmark-road, Mrs. Tombs; house, cr. East-avenue and Kinross-road, Mrs. E. M. Keays; alterations, 39, Latimer-road, Mr. Chubb; house, cr. Pine-road East and Charminster-avenue, Messrs. E. M. Drewitt & Co.; house and shop, cr. Charminster-avenue and Stroudenroad, Messrs. E. M. Drewitt & Co; house and workshop, Clarence Park-road, Mr. A. Scott; conversion into flats, 10, Beresford-road, Mr. S. M. Gibbs; house, Penrith-road, Mrs. Maitland Gordon; house, Richmond Wood-road, Mrs. Drake; house, Carbery-avenue, Mr. A. F. Clarke; two houses, Carbery-avenue, Messrs. Dacombe & Rabbetts; pair houses, Cardigan-road, Mr. G. Wilcox: two flats, Grand-avenue, Mr. J. Moody; two shops and flats, cr. Beaufort and Kimberley-roads, Mr. Adams; house, Coronation-avenue, Mr. A. E. Best; sixteen houses, Acland, Frampton and Brownen-roads, Mr. H. Barnes; house and garage, Stourcliffe-avenue, Mr. R. J. M. Nabney; house, Edgehill-road, Mr. H. Rigler; house, Edgehill-road, Mr. H. Rigler; conversion into flats, 5, Milburn-road, Mrs. Edwards; two houses, Frederica-road, Mr. C. H. Belbin; semi-bungalow, Court-road, Mr. R. Grundy; house, Hankinson-road, Mr. C. Burt, junr.; house, cr. Leigham Vale and Seafield-roads, Mr. E. L. Norris; house, Queen Mary-avenue, Mr. S. Carpenter; house and garage, Southern-road, Mr. E. W. Patrick; motor house, "Zir," Westerham-road, Mr. H. Monckton; five houses and shop, cr. Hankinson and Somerley-roads, Mr. W. Bonfield; transformer sub-station, Norwich-road, The Bournemouth and Poole Electricity Supply Co., Ltd.; two houses, Oates-road, Mr. J. Jones; house, Queen Mary-avenue, Mr. T. Mallett; additions to pavilion, Sports Field, Walpole-road, Capt. A. E. Tregoning; bakehouse and garage, rear of "Alma Villa," Lower Charminster-road, Mr. C. Green; two houses, Southbourne Overcliffe-drive, Mr. J. C. Drewitt; bungalow, cr. of Oswald and Croft-roads, Miss Symonds; additions, 4, Cranmer-road, Mr. J. Candy; house, 14, Melville-road, Mr. Spicer; house, Queen Mary-avenue, Mr. S. Way; motor house, 14, Stafford-road, Mr. H. T. Baker; workshop, &c., 127, Ensbury Park-road, Mr. E. H. Walley; house and garage, Pinecliffe-avenue, Mr. E. R. Saunders; house, cr. Howard-road and Cecil-avenue, Mr. E. H. Walley; two houses, Newstead-road, Mr. J. Drewitt; house, Arnewood-road, Messrs. Golton Bros.; two houses, Holdenhurst-road, Mr. J. J. Elkins; house, Queen's Park South-drive, Mr. C. V. Miller; additions, "Wilberforce Hotel," 159, Holdenhurst-road, Mr. Gubby; house, Methuen-road, Messrs. Ellison, Son & Dale; house, St. Alban's-avenue, Messrs. C. A. Barnes & Co.; house, Penrith-road, Mr. J. Newbury; house, Kimberley-road, Mr. H. E. Small; alterations and additions to workshops, Abbott-road, Messrs. J. & A. Steane.

BRADFORD.—The Parks Committee has requested the City Engineer to formulate a scheme for the extension of the recreation ground at Wibsey Park, with a view to providing work for the unemployed.

BROMLEY.—Plans passed by T.C.: Messrs. Wells & Akers, two houses, Sandford-road; Messrs. Woodhams & Tyler, gymnasium, Woodlawn, Page Heath-lane; Messrs. Thompson & Walford, house, Waldegrave-road; Mr. F. G. Crickett, heating chamber, Baptist Church, Cherry Orchard-road; Messrs. Graham & Co., house, Farnaby-road; Messrs. Woodhams & Tyler, fitter's shop, Tylney-road; Messrs. T. Crossley & Sons, house, Hayes-road; Mr. F. G. Crickett, garage, Queen's-road; Messrs. T. Crossley & Sons, office, Tweedy-road, Bromley North Station.

CARLISLE.—The R.D.C. has approved plans by Mr. H. H. Hodgkinson, architect, Carlisle, on behalf of Mr. R. S. Kirk, for the conversion of one house into three cottages, and the erection of two bungalows; also for additions to a cottage near Grier's-hill, Harker, and by Mr. T. Blakely, architect, on behalf of Mr. E. Lowther, Lyndhurst, Slough, for the erection of a cottage and garage at Mount Pleasant, Heads Nook.

CHESTERFIELD.—Plans passed by T.C.: Garage, Theatre-lane, for Mr. W. Sanders, Corporation-street; garage at Lindenhurst, Gladstone-road, for the Staveley Coal & Iron Co., Ltd.; shelter, Recreation Ground, Saltergate, for the Chesterfield Football Club, Ltd.; extension to business premises in Park-road, for Messrs. T. Irving & Co., Gluman-gate; two houses at Brookside, for Mr. Oliver Kirk; 48 houses at Littlemoor, Newbold, for the Sheepbridge Coal & Iron Co., Ltd.; three houses in Redvers Buller-road, for Mr. George Webber; business premises in Gluman-gate, for Messrs. Thos. Irving & Co.; shop front in Auckland's-place, for Mr. A. Hardwick; shop and reorganisation of the "King and Miller" Inn, new street from Knifesmith-gate to Gluman-gate, for the Chesterfield Brewery Co., Ltd.

COLWYN BAY.—Plans passed by U.D.C.: Garage for Allen Motor Co. (Colwyn Bay), Ltd.; eight houses, Colwyn-crescent, for Mr. T. L. Emery; house, Walshaw-avenue, for Mrs. Sinkinson; garages and bowling green off Penrhyn-avenue, for Mr. W. Wooller; house, Llandudno-road, for Mr. T. Birch; two houses corner of Wynne-avenue and Colwyn-gardens, for Mr. D. Jones; two houses, Queen's-road, Old Colwyn, for Mr. J. Evans; house, Llandudno-road, for Mr. R. E. Hastewell; six houses, Kensington-avenue, for Astbury & Bevan; two houses, Llandudno-road, for Mr. R. Hughes; wine store, Everard-road, for Mr. W. Hewitt; two houses, Llandudno-road, for Mr. W. Bennett; two houses, East Parade, for Mr. E. Salisbury.

CORRIS.—Sir Howell J. William, of Corris and London, will contribute £2,000 towards the erection of a new chapel at Corris.

COVENTRY.—The R.D.C. has passed plans for extensions at the Humber Works, and a house in Humber-road.

DONCASTER.—An inquiry on behalf of the Ministry of Health has been held by Mr. W. M. Cross into an application made by the Corporation for power to borrow £82,000 for water supply, approval of the sale of a portion of Elmfield Park for building purposes, and other matters connected with the sale and purchase of property.

DUNDEE.—Plans passed: Blackness-road, house, for A. Malcolm; Broughty Ferry-road, alterations to house, for Bruce, Son & Morton; Claypots-road, Broughty Ferry, alterations to farmhouse, for the Earl of Home; Gray-street, Broughty Ferry, lavatory, for The North of Scotland & Town & County Bank, Ltd.; Hilltown, store, for J. Ure Maclauchlan's Trustees; Hyndford-street, house, for James Findlay; Long-lane, Broughty Ferry, shop, for Alex. Thomson; Mains Loan, alterations for Dundee Parish Council; Small's Wynd, alterations, for Thomas Winton & Sons, Ltd.; Tullideph-road, cottages for John Cree.

DUNSTON.—A valuable site, comprising nearly three-quarters of an acre, has been presented to the parish of Dunston, by the Rector of Whickham, the Rev. C. E. Little, Rural-Dean of Chester-le-Street, for a new church, parish hall and vicarage.

EDINBURGH.—The Dean of Guild Court has granted petitions for the erection of the following:—Caledonian Railway Company, alterations at Princes-street Station; Miss Madge Dunn, cottage at Hill View-terrace, Corstorphine; Mr. John White, to subdivide the house at 13, Gloucester-place; and Mr. James Taylor, dwelling-houses at Boull-road, Corstorphine.

ETON.—A new art gallery is to be erected at Eton at the north end of the "Gasworks Site," and the work will be commenced early next year. Mr. Prideaux has already given £2,000 towards this object, with the promise of an additional £3,000 in memory of his son, Geoffrey Arthur Prideaux.

FELPHAM.—The sanction of the church authorities has been obtained for the erection of a hall on the Glebe-field, Limmer-lane. The plans are being prepared by Captain Adams, the honorary architect, and building operations will commence at an early date.

GLASGOW.—Among the linings granted at the last sitting of the Dean of Guild Court were the following:—John Dixon, builder, Giffnock, to erect a bungalow in Merrylee-road; Glasgow Academy (Limited), to erect additional grandstands on their ground at Anniesland; William Cook, 1010, Pollokshaws-road, to erect 10 houses of five apartments each at Dinmont-road, Shawlands; Glasgow Parish Council, to make additions to Stobhill Hospital; and the Glasgow Corporation Gas Department, to erect new workshop at Maxwell-road. The erection of a hall to meet the requirements of the Woodside, Ruchill and North Kelvin districts of the city has been recommended by the General Finance Committee. It is proposed to build the hall on vacant ground in Granville-street and Clarendon-street. The cost is estimated at £18,000. The plans show a large hall, which will accommodate 870 persons, and two lesser halls.

GWAEN-CAE-GURWEN.—The G.W.R. Co. has informed the local governing body that it is considering the erection of a station at Gwaen-cae-Gurwen.

HAVERFORDWEST.—The U.D.C. has received notification that the Pembroke County Council will allot up to £450 toward the estimated cost of the Old Bridge improvement scheme. The surveyor has been instructed to obtain tenders for supplying per cubic yard of road preparation materials.

HULL.—Plans passed by T.C.: G. T. Spruit, two houses, Cottingham-road; A. Evans, two houses, Cottingham-road; E. Grocock, house and shop, Portobello-street; A. Arwidson, three houses, Victoria-avenue; J. Winsall, shop front, 432, Holderness-road; Dr. F. D. Yuille, additions, Beverley-road; G. & T. Earle, Ltd., steel roof for chalk crusher, Wilmington; T. Blenkin, shed, Coltman-street; A. & B. Smith, additions, Gillett-street; Barton's Seed Crushing Mills, Ltd., warehouse, "King's Mill," Stoneferry; The Newland Wood Supply, sawmill and box factory, Alexandra-road; Priestman Bros., Ltd., additions, Williamson-street; Bentley's Laundry, alterations and additions, Greek-street; H. Brown, additions, "South View," Newland Park; W. Reed, drainage, Newland Park; H. Leggott, garage, 118, Park-avenue; W. Frost, alterations, 37, Chariot-street; Plaxton & Co., shop front, Alfred Gelder and Manor-streets; T. Linsley & Co., Ltd., alterations, "Station Inn," Beverley-road; B. Barnaby & Sons, office and lavatories, Neptune-street; Raines & Porter, Ltd., shed, Oxford-street; Hull Corporation, office, Gillett-street; Paragon (Hull) Motor Co., Ltd., motor garage, rooms and offices, Anlaby-road.

HYTHE.—The T.C. has accepted plans presented by Messrs. Bromley & Dahl, architects, Folkestone, for the adoption of the baths as shelters, concert-hall, &c., the estimated cost being £5,000, and has referred the matter to a committee.

KEIGHLEY.—Plans passed by T.C.: S. Sunderland, garage off Greenhead-lane; W. Sunderland, garage, Bar House-lane; executors of Heaton Moore, workshops and garages off Lawkholme-lane; W. Myers, addition, Howden-avenue; E. J. Hebb, surgery, &c., Malsis-road; J. & H. R. Shackleton, cart shed, Hainworth Shay-road.

LANCASTER.—Plans passed by T.C.: Alterations, 8, Westbourne-terrace, for Miss Railton; two dwelling-houses, in Lincoln-road, for Mr. W. Waites; new shop premises, in Penny-street, for Mr. Luke Parkinson; workshop, on the Ramparts, for Messrs. T. & G. Angus. —Messrs. W. Wolstancroft & Co., clothing manufacturers, are acquiring a site from the Corporation on which to erect a factory.

LIVERPOOL.—The T.C. has in contemplation a great road making scheme—apart from the proposed Manchester-Liverpool highway—involving, it is estimated, an expenditure of £600,000. The work will be spread over the outskirts of the city, and in addition to new construction, improvements are contemplated. New offices are to be constructed at a cost of nearly a million pounds, for Messrs. Alfred Holt & Co., steamship owners, and it is understood that the Bank of Liverpool and Martins have decided to build new premises. There is also a proposal to be submitted to the Corporation for the provision of an open-air sea-water bath at the pier head. Housing and other schemes are under consideration by the Birkenhead T.C., and it is suggested that £500,000 should be borrowed for these purposes.

LONDON (DEPTFORD).—Drainage plans passed by B.C.: At 56A, Kender-street, for R. Mansell; at "Prince Regent," High-street, for Whitbread & Co.; at 33, High-street, for C. T. Eprile; at Pyne Bros., Lewisham High-road, for G. Parker & Sons.

LONDON (HAMMERSMITH).—Plans passed by B.C.: At 40, Greenside-road, for J. Morley; 191A, Askew-road, for J. Smith & Son; 24, King-street, for W. Lawrence & Son; St. John's Hospital, Tunis-road, for C. R. Price; St. Catherine's Church, Parish Hall, Western-avenue, for J. McManus, Ltd.; 35, Waterlow-street, for J. Salisbury & Co.; 160, Blythe-road, for Chudleigh Bros.; 59, The Grove, for W. H. Davies; 32, Hadyn Park-road, for M. E. Neal; new pump house, at Chancellor's Wharf, for Electricity Dept., Hammersmith B.C.; 333, King-street, for J. E. A. Banfield; 22, Arch, The Grove, for A. H. Cook; new house, junction of Emlyn-road and Palgrave-road, for L. A. Culliford; 31, Rowan-road, for J. C. Platt;

* See also our List of Contracts, Competitions, etc.

Welsh Chapel, Southerton-road, for F. R. Gould-Wills; 456, Uxbridge-road, for W. Morley; Messrs. Barker's premises, Olaf-street, for J. Slade & Son; factory, south side Woodstock-road, for F. Mark; bottling stores, Harrow-road, for M. F. Saunders; garage, Woodger-road, for A. Legge & Co.

LONDON (LAMBETH).—The Surrey Cricket Club are considering the question of providing increased accommodation at the Oval at an estimated cost of £11,000.

LONDON (LEWISHAM).—Plans passed by B.C.: Additions, 103, Tyrwhitt-road, for Hodson Bros.; drainage, 7 to 10, Weardale-road, for L. A. Stanton; nine and six houses, Beckenham-lane, for T. H. Sawyer & Son; additions, 7 Avenue-road, for J. & J. Jeffreys; additions, Bromley Hill-court, for E. P. Cawston; house, Dacres-road, for L. P. Kerkham; garages, 102, Hither Green-lane, for H. & J. Taylor.

LONDON (ST. PANCRAS).—Additions at Tolners-square Congregational Church, for conversion into cinema.

LONGNIDDRY.—The Presbytery of Haddington have approved of plans for a church, hall, and manse at Longniddry.

MUSSELBURGH.—The Dean of Guild Court has passed plans for the erection of 20 brick houses at Monktonhall, for the T.C.

N.E. RAILWAY.—Extensive alterations are to be made to Tyne Dock Engine Shed. Seaham Colliery and West Hartlepool Railway Stations are to be altered. The above alterations will be carried out by contract.

NEWCASTLE.—The City Council have approved a report of their Estate and Property Committee inviting tenders for baths and wash-houses, at Heaton.——Street work entailing an outlay of £6,000 is also to be proceeded with at Walker.——The Council further decided to accept tenders for the erection of an additional 98 houses on their Walker estate.——The City Council have also considered a report from the Town Improvement Committee embracing a number of schemes for finding work for unemployed, the total estimated expenditure being in the vicinity of £250,000. The proposals included the making of Scrogg-road, Walker; a new sewer for Heaton and Walker, to cost £76,847; widening of Benwell-lane; Benwell-lane extension, to cost £12,000; Union-road extension, Walker, to cost £7,500; South Benwell, new road, to cost £22,000; and Armstrong-road extension, to cost £12,000.—— The Committee also recommended that improvements be effected to the North-road, at a cost of £100,000; and that the proposed joint road from the city to the coast at Whitley Bay and Tynemouth, in which in all seven authorities are interested, should be proceeded with so soon as arrangements with the Ministry of Health and the local councils had been completed.

NEWCASTLE-ON-TYNE.—The T.C. has agreed to carry out road works, estimated to cost £300,000, to provide work for the unemployed and to invite tenders for the erection of baths and washhouses at Walker and Heaton.

NORTHAMPTON.—The borough engineer has been instructed to prepare plans of refreshment rooms and a corn exchange.—It is proposed by the T.C. to erect an additional 52 houses.—Plans passed: Shop front, 29, St. Leonard's-road, for Adams Bros.; extensions to offices, Roe-road, for W. W. King; two cottages, Rothersthorpe-road, for H. Holton; house, Woodland-avenue, for A. J. Cockerill; alterations to premises, Regent-square, for W. Ainge; four houses, New-road, north of Far Cotton Recreation Ground, for E. H. Tibbs; boiler house, Primrose-hill, for the Trustees, Primrose-hill Congregational Church; garages, Spring-gardens, for G. Prickman; alterations, 44, Barrack-road, for Pearks Dairies, Ltd.; house, Abington Park-crescent, for T. Arnold; house, Lime-avenue, for H. F. Baker; additions to premises, Abington-square, for Ernest Poole; additions to premises, 87, Abington-avenue, for Mr. Harris; lavatory and cloak room, 413, Abington Park-parade, for H. J. L. Matson; motor garage, Church-lane, for A. Hibbitt; furniture store, Sheep-street, for Hamp & Sons.

OGMORE AND GARW.—The surveyor submitted a report to U.D.C. showing following road schemes, with estimates, as having been proposed for the Ogmore and Garw Valleys: Improvement and widening Cuckoo-street and West Colliery-road, £1,500; Bettws and Llangeinor-road and Bettws Building, £4,530; road and bridge widening between Bettws and Llangeinor Station and Tillors Arms, Lletty Brongu, £30,000; improvements between Llangeinor G.W.R. Station and Bettws Village, £10,347 10s.; Ogmore Valley-road, between Nantymoel and Rhondda (work to be done in conjunction with Rhondda U.D.C.), £30,000; road widening between Aber Arms and Aber Houses, Ogmore Vale, £1,518 16s. 6d.; Ocean Bridge, £1,500; road improvement between University Buildings and Tronwen-road, £1,305; new road between Isolation Hospital, Blackmill, and housing site, Llangeinor, £10,200; new road, Gilfach Goch, £15,300; road works, Abergarw, £8,000.—The Council decided to act in conjunction with Rhondda U.D.C. in improving inter-valley communications in Mid-Glamorgan and decided to apply for grants from the Ministries of Transport and Health. A letter was received from Ministry of Transport offering grant in respect to widening, &c., of Ocean Bridge if work was carried out immediately. The offer was accepted and application made for loan of £1,600 for the work.

PENARTH.—The U.D.C. is to apply for sanction to borrow £5,000 in order to put in hand immediately the Kywin-hill improvement scheme; the surveyor was instructed to arrange for immediate carrying out of Penarth Head sewerage scheme. Sir Henry Wayberry has recommended the Council to take up and resurface Windsor-road from the Cogan Barry Station Bridge. The Roads Board are prepared to make substantial grant if work is carried out immediately. The Council has decided to do so.

SCARBOROUGH.—The T.C. has considered the North Cliff subsidence problem. The question at issue was whether the sliding of the cliff should be allowed to take its course (with the possible result of the collapse of the Royal Albert-drive), or whether schemes (admittedly in the nature of experiments) should be undertaken to check the subsidence. Some time ago Dr. Lapworth, of London, recommended the removal of the flagstaff mound in Clarence-gardens, and an elaborate system of drainage of the upper part of the cliff and Queen's-parade. He calculated that 100,000 tons of material would have to be removed; and also indicated that other measures, such as the construction of a massive deep-seated concrete toe in front of the sea wall, might be necessary. The Borough Engineer has outlined a scheme for a semi-circular bay well, extending 200 ft. in front of the wall, and suggested that the material from the Clarence-gardens mound should be utilised for filling. The Council has decided to carry out immediately the recommendations made by Dr. Lapworth, subject to the Ministry of Health granting sanction to the borrowing of the necessary money.— Councillor W. E. Snowball, speaking at a luncheon in connection with the Scarborough Townsmen's Association, said it had been mentioned that the North-Eastern Railway Company had mooted the idea of rebuilding the railway station at Scarborough. It would probably cost £40,000 to £50,000 to rebuild.

SCUNTHORPE.—The U.D.C. has decided to apply to the Ministry of Health for sanction to borrow £16,464 5s. 6d. for the provision of a new cemetery off Brumby Wood-lane, and for the erection of the necessary buildings thereon.

SOUTH BENFLEET.—The Essex E.C. has instructed the architect to prepare plans for a school to accommodate 300 children.

STOCKTON-ON-TEES.—Plans passed by T.C.: Ten houses to be erected in Richmond-road, for Mr. L. Brown, Brooklyn, Richmond-road, and Mr. J. C. Watson, Central Buildings.

STROUD.—The Gloucester C.C. has included the provision of a central school for girls in its estimates.

TYNEMOUTH.—Plans passed by T.C.: Semi-detached villas, by Mr. C. P. Sherwin, for Messrs. S. Wilson and C. P. Sherwin; memorial, Tynemouth Jubilee Infirmary, by Messrs. Cackett & Burns Dick, for Governors of Infirmary; four bungalows, Queen Alexandra-road, by Messrs. Hays & Gray, for Mr. W. Hobbs.

WAKEFIELD.—Plans passed by R.D.C.: Alterations to house, Sharlston Common, for Mr. D. McAdoo; house, at Foulby, for Mr. A. Francis; house, Crigglestone, for Mr. A. E. Shaw.

WARRINGTON.—The Co-operative Society has passed plans for new tailoring and outfitting departments in Cairo-street.

WESTBURY.—A letter has been received from the Ministry of Health giving their sanction to a loan of £10,570 to complete parts 2 and 3 of the sewerage scheme. A grant of 65 per cent. for 15 years has been obtained from the Unemployment Grants Committee. The engineers are Messrs. W. H. Radford & Son, of Nottingham.

YORK.—The Public Library Committee of the Corporation are to consider a letter from the Secretary of the Carnegie United Kingdom Trust in reference to the provision of a new public library.—Plans passed by T.C.: York City Rowing Club, dressing-room, Esplanade; Lofthouse & Hurst, workshops, Avenue-lane, Clifton; E. J. Treasure and W. R. DeBurgh, two houses, Hempland-lane; C. Martin, two cottages, Curzon-terrace; British Petroleum Co., pump house and motor house, James-street; A. Colley, shed and store, Livingstone-street; F. L. London, extensions, East Parade; T. Horsley & Son, workshop, Blossom-street; T. B. Lyth, house, Moorgate.

FIRES.

BANBURY.—A fire has resulted in the destruction of the Station Garage belonging to Mr. H. White.

BINGLEY.—A warehouse in Whitley-street, owned by Mr. W. R. Dawson, has been destroyed by fire.

BOURNE.—The premises of Mr. H. Kisby, grocer, have been destroyed by fire.

CHICHESTER.—The boiler-room and the music-room at the High School has been damaged by fire.

GATESHEAD.—Damage to the extent of £50,000 has been caused by fire on the premises of Messrs. Pemberton, paper manufacturers.

HEREFORD.—A fire which completely burnt out the provision markets and hop warehouses occurred last week.

KEIGHLEY.—Damage to the amount of about £3,000 was caused by a fire which broke out at the wood distillation works of G. L. Greenwood & Co., Ltd., Ingrow, on Saturday.

KENNETHMONT.—The building occupied by Mr. Reid, cycle agent, Kennethmont, Aberdeenshire, and its contents have been completely destroyed by fire while the adjacent premises of Mr. James Reid, general merchant, were also considerably damaged.

MARDY.—An extensive workmen's institute at Mardy, in the Rhondda Valley, has been destroyed by fire, the estimated damage being nearly £20,000.

MUSSELBURGH.—A fire has occurred at Brunton's wire mills, a two-story brick building being destroyed.

PORTHCAWL.—Damage estimated at £600 has been caused by fire at the premises of Mr. Evan Rees, Central Stores.

ST. ANDREWS.—Considerable damage has been done to St. James' Roman Catholic Church through an outbreak of fire.

STOCKPORT.—Damage amounting to several thousands of pounds has been caused by a fire at the Corporation gasworks.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

KING FREEMAN & CO., LTD. (185,133). Registered October 19. The Parade, Golders Green, N.W.11. Builders and decorators. Nominal capital, £5,000.

TRIUMPH HOUSE, LTD. (185,091). Registered October 17. 189, Regent-street, W. Builders and contractors. Nominal capital, £1,000.

G. H. MUMBY & CO., LTD. (185,041). Registered October 16. 192, High-road, Balham, S.W.12. Builders, contractors, decorators, &c. Nominal capital, £1,500.

COUNTY ASPHALTE CO., LTD. (185,071). Registered October 17. 22, Briggate, Brighouse, York. Nominal capital, £10,000.

THURMAN & WHITE, LTD. (185,209). Registered October 23. 116, Canonbury-road, Islington, N. 1. Builders and contractors. Nominal capital, £3,000.

BROOK, BROWN & CO., LTD. (185,355) Registered October 30. Rosemount-yard, North-road, Gabalfa, Cardiff. Timber and general building material merchant. Nominal capital, £5,000.

DALLOW'S MONUMENTAL, LTD. (185,230). Registered October 24. Monumental Works, Uplands, Smethwick. Monumental sculptors and monumental stonemasons, now carried on as a branch business by John Dallow & Sons, at Uplands, Smethwick, Stafford. Nominal capital, £3,000.

TIMBER & WOOD CRAFTSMEN, LTD. (185,177). Registered October 20. 41, Markeaton-street, Derby. Deal in and generally trade with bungalows and timber homes generally. Nominal capital, £2,000.

AUCTIONEERS, LTD. (185,385). Registered October 31. 10, Upper Priory, Birmingham. Land and house agents, surveyors and auctioneers, &c. Nominal capital, £1,000.

JENNER & SONS, LTD. (185,460). Registered November 2. To acquire and carry on the business of builders' merchants heretofore carried on at 154, Uxbridge-road, Shepherd's Bush, W., under the style of Jenner & Sons. Nominal capital, £5,000.

T. W. MASON & SON, LTD. (185,464). Registered November 2. 4a, Tranmere-road, Earlsfield, S.W. 18. Builders and contractors. Nominal capital, £2,000.

JAMES BERRY, LTD. (185,495). Registered November 3. To acquire and carry on the business of joiner, builder and general contractor, now carried on by James Berry, at Chapel-street, Heywood, Lancaster, under the style of James Berry. Nominal capital, £6,000.

MALCOLM & CO., LTD. (185,451). Registered November 2. 11, Corn Exchange, Leeds. To acquire by purchase, exchange or otherwise lands, tenements and hereditaments of any tenure. Builders, architects and surveyors, brick and tile makers, lime burners and house and estate agents. Nominal capital, £1,000.

OSWALD TRAMONTINI, LTD. (185,479). Registered November 3. 40, Broad-street House, New Broad-street, E.C. Manufacturers of parquet, wood block, tile, mosaic, composition and all kinds of paving and floorings. Nominal capital, £300.

RAGUSA ASPHALTE PAVING CO., LTD. (185,345). Registered October 28. To carry on the business of asphalters, tar paviors, stone merchants, artificial stone makers, &c. Nominal capital, £50,000.

DUTTON & SON, LTD. (185,307). Registered October 27. 21, Mulberry-street, Liverpool. General contractors, sanitary plumbers, painters and decorators. Nominal capital, £1,000.

ROBINSON'S BRICK & TILE CO., LTD. (185,275). Registered October 26. To carry on the business of brick and tile makers. Nominal capital, £5,000.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at			
King's Cross	3 1 0	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	3 3 0	Do. Bullnose	10 1 6
Do. Bullnose	3 16 0	Blue Wire Cuts	7 11 6
Best Stourbridge Fire bricks:—			
2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White, Ivory, and Salt Glazed Stretchers	22 0 6	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins, Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

	s. d.		
Thames Ballast	13 6	per yard,	delivered 2 miles radius Paddington.
Pit Sand	16 0	" "	
Thames Sand	16 6	" "	
Best Washed Sand	16 6	" "	
½ in. Shingle for Ferro-Concrete	14 0	" "	
¼ in "	15 0	" "	
½ in. Broken Brick	10 6	" "	
Pan Breeze	5 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification Test £3 3 0	£3 8 6
56/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	10 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 13 0
" " Pink	5 8 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 12 0
" Finish	4 0 0
Grey Stone Lime	2 16 6
Chalk Lime	2 16 6
Best Ground Blue Lias Lime	2 18 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	3 1
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3 4
Do. do. delivered on road wagons at Nine Elms Depot	3 5
PORTLAND STONE—Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 7
Do. do. delivered on road wagons at above stations, per ft. cube	4 8
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto, ditto "	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain	8 6 per ft. cube.
Moulded	10 0 " "
Cills	11 0 " "

WOOD.

GOOD BUILDING DEAL.

Inches	per stan.	Inches.	per stan.
4 × 11	£36 0	3 × 6	£22 10
4 × 9	36 0	3 × 11	32 10
4 × 8	28 0	2 × 11	32 10
4 × 7	26 0	3 × 9	30 0
3 × 8	26 0	2½ × 9	30 0
3 × 7	22 10	3 × 4½	20 10
2½ × 7	22 10	3 × 4	20 10

PLANED BOARDS.

1 × 11	40 0	1 × 9	35 0

PLAIN EDGE FLOORING.

Inches	per sq.	Inches	per sq.
⅜	20/-	1¼	32/6
½	22/6	1½	40/-
1	25/-		

WOOD (*Continued*).

TONGUED AND GROOVED FLOORING. Inches	per sq.
1	25/-
1¼	32/6
1½	40/-

MATCHINGS (BEST). Inches	per sq.
½	17/6
¾	22/-
1	25/-

BATTENS.	s. d.
2 × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle				0 3 0	
Dry Wainscot Oak, per ft. super, as inch	0 2 0	to	0 3 0		
¼ in. do. do.	0 1 10½	to	0 2 6		
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 2 3	to	0 3 0		
Cuba Mahogany	0 3 6	to	0 4 0		
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to	50 0 0		
American Whitewood planks, per ft. cube	0 16 0	to	0 18 0		
Best Scotch Glue per cwt.	6 15 0	to	—		
Liquid Glue, per cwt.	4 7 0	to	5 10 0		

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	41 17 6	18 by 10	23 12 6
22 by 12	38 0 6	18 by 9	20 16 3
22 by 11	35 2 0	16 by 10	19 16 0
20 by 12	33 8 3	16 by 8	15 8 3
20 by 10	28 11 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	6 0 0
Ditto hand-made ditto	6 10 0
Ornamental ditto	6 15 0
Hip and valley tiles (per dozen) Hand made	0 8 6
Machine made	0 8 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 0 0
Plain Compound Girders	15 0 0
" Stanchions	17 0 0
In Roof Work	20 0 0

WROUGHT IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £15 net value delivered direct from Works, 5 per cent. less above gross discounts, carriage forward if sent from London Stocks.)

Tubes. (all sizes).	Fittings, Up to 2".	Fittings, Over 2".	Flanges. Up to 2".	Flanges. Over 2"
Gas	55 %	50 %	60 %	65 %
Water	50 %	45 %	55 %	60 %
Steam	45 %	40 %	50 %	55 %
Galv'd—				
Gas	45 %	42½ %	47½ %	52½ %
Water	37½ %	35 %	42½ %	47½ %
Steam	27½ %	32½ %	37½ %	42½ %

L.C.C. COATED SOIL PIPES—London Prices ex works.

Pipe.	s. d.	Bends, stock angles.	s. d.	Branches, stock angles.	s. d.
2 in. per yd. in 6fts plain	3 2½	2 5		2 11	
2½ in. "	3 9½	2 8		3 8	
3 in. "	4 5½	2 11		4 4	
3½ in. "	4 10½	3 8		5 1	
4 in. "	5 5	4 1		5 10	

RAIN-WATER PIPES, &c.

Pipe.	s. d.	Bends, stock angles.	s. d.	Branches, stock angles.	s. d.
2 in. per yd. in 6fts. plain	1 10½	1 4½		1 10½	
2½ in. " "	2 1	1 7½		2 3	
3 in. " "	2 6	2 0		3 0	
3½ in. " "	2 11	2 4½		3 6	
4 in. " "	3 5	2 10½		4 3	

L.C.C. DRAIN PIPES.—9 ft. lengths. London Prices per yd.: 4 in., 5/3. .. 5 in., 6/0. .. 6 in., 8/-.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	12 10 0	to	13 10 0
Staffordshire Crown Bars — good merchant quality	13 10 0	..	14 10 0
Staffordshire "Marked Bars"	16 0 0	—	17 0 0
Mild Steel Bars	12 0 0	..	13 0 0
Steel Bars, Ferro-Concrete quality, basis price	12 0 0	..	13 0 0
Hoop Iron, basis price	15 0 0	..	16 0 0
" Galvanised	29 0 0	..	31 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	14 0 0	..	15 0 0
" " " 24 g.	15 0 0	..	16 0 0
" " " 26 g.	16 10 0	..	18 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6ft. by 2ft. to 3ft. to 20 g.	20 0 0	..	21 0 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 22 g. and 24 g.	21 0 0	..	22 0 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 26 g.	23 0 0	..	25 0 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9ft. 20 g.	19 0 0	..	20 0 0
Ordinary sizes, 6ft. to 9ft. 22 g. and 24 g.	19 10 0	..	20 10 0
Ordinary sizes, 6ft. to 6ft. 26 g.	21 10 0	—	22 10 0

METALS (*Continued*).

Per ton in London.	£ s. d.		£ s. d.
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	22 0 0	..	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	—	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	..	25 10 0
Cut Nails, 3in. to 6in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot sup. er.

LEAD, &c.

Delivered in London.

	£ s. d.		£ s. d.
LEAD—Sheet, English, 4 lb. and up	35 10 0	—	—
Pipe in coils	36 0 0	—	—
Soil Pipe	38 10 0	..	—
Compo pipe	39 10 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	£3 10 0	—	—
Do., ex country, carriage forward per ton	£4 10 0	—	—
COPPER— Strong Sheet per lb	0 2 3	—	—
Thin "	0 2 4	—	—
Copper nails	0 2 3	—	—
Copper wire	0 2 4	—	—
TIN—English Ingots "	0 1 11	—	—
SOLDER—Plumbers' "	0 0 11	—	—
Tinmen's "	0 1 1	—	—
Blowpipe "	0 1 4	—	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.	
15 oz. fourths	2½d.	32 oz. fourths	8½d.
" thirds	4½d.	" thirds	10d.
21 " fourths	4½d.	Obscured Sheet, 15 oz.	3½d.
" thirds	6d.	21 "	5½d.
26 " fourths	5½d.	Flinted 15 oz.	7½d. 21 oz. 9½d.
" thirds	7½d.	En'tled 15 " 5½d.	21 " 7d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

Per Ft.	
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceana, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil	in pipes per gallon	0 3 5
" " "	in barrels "	0 3 7
" " "	in drums "	0 3 10
Boiled " "	in barrels "	0 3 11
" "	in drums "	0 4 1
Turpentine	in barrels "	0 9 5
"	in drums (10 gall.) "	0 9 8
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		55 5 0

GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 77 10 0

Red Lead, Dry (packages extra)	per ton	39 0 0
Best Linseed Oil Putty	per cwt.	0 17 0
Filocol	per cwt.	0 15 6
Size. X D Quality	fkn.	0 8 6

VARNISHES, &c.

	Per gallon. £ s. d.
Oak Varnish Outside	0 14 6
Fine ditto ditto	0 16 0
Fine Copal ditto	0 18 0
Pale Copal ditto	1 0 0
Pale Copal Carriage ditto	1 4 0
Best ditto ditto	1 12 0
Floor Varnish Inside	0 18 0
Fine Pale Paper ditto	0 18 0
Fine Copal Cabinet ditto	1 2 6
Fine Copal Slatting ditto	1 0 6
Hard drying Oak ditto	0 18 0
Fine Hard drying Oak ditto	0 19 0
Fine Copal Varnish ditto	1 0 0
Pale ditto ditto	1 2 0
Best ditto ditto	1 12 0
Best Japan Gold Size	0 12 0
Best Black Japan	0 12 0
Oak and Mahogany Stain (water)	0 12 0
Brunswick Black	0 9 0
Berlin Black	0 14 0
Knotting (patent)	1 5 0
French and Brush Polish	0 17 6
Liquid Dryers in Terebine	3 10 0
Cuirass Black Enamel	0 7 0

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	15	0
Add if in clay	" "	1	6
Add for every additional depth of 6 ft.	" "	0	9
Planking and strutting to trenches	per foot super	0	7
Do. to sides of excavation, including shoring	" "	1	2

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	40	0
Add if in underpinning in short lengths	" "	9	0
Add if in floors 6 in. thick	" "	3	9
Add if in beams	" "	4	6
Add if aggregate 1 : 2 : 4	" "	11	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	34	0	0
Add if in stocks	"	8	10	0
Add if in Staffordshire blues	"	24	0	0
Add if in Portland cement and sand	"	3	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat strucks or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	3
Setting ordinary register grates and stoves	each	1	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	5	5	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	7	6
Three-quarter-inch vertical damp course	" "	11	0
½ inch on flats in two thicknesses	" "	8	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	4

MASON.

		s.	d.
York stone templates fixed	per foot cube	16	3
York stone sills fixed	" "	28	6
Bath stone and all labour fixed	" "	12	0
Portland stone fixed	" "	21	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	79	9
Do. 20 in. × 10 in. Do. Do.	"	90	9
Do. 24 in. × 12 in. Do. Do.	"	99	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	6
Do. joists	" "	6	0
Do. roofs, floors and partitions	" "	6	6
Do. trusses	" "	8	6

		¾"	1"	1½"	2"
Deal rough close boarding	per sq.	42/-	48/-	56/-	85/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	60	0
Do. to beams	per ft. sup.	1	6
Centres for arches	"	2	0
Gutter boards and bearers	"	1	1

FLOORING.

		¾"	1"	1½"	1½"
Deal edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/8	2/1	2/3	2/9

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	3
Add for fitting and fixing	" "	0	6
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	4	0

DOORS.

		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/4	2/7	2/9
Four-panel Do.	"	2/8	3/0	3/3
Two-panel moulded both sides	"	3/0	3/3	3/6
Four-panel Do. Do.	"	3/3	3/7	3/10

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1½"	1½"
Plain deal jamb linings framed	per ft. sup.	1/9	1/10	2/1
Deal shelves and bearers	"	1/6	1/8	1/11
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	50	0
Extra labour and solder in coated cesspools	each	7	4
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	10
Copper nailing	" "	0	7

		¼"	½"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	9
Do. Do. Sirapite	" "	2	11
Do. Do. Keen's	" "	4	0
Add sawn lathing	" "	1	7
Add metal lathing	" "	2	10
Portland cement screed	" "	2	1
Do. plain face	" "	3	9
Mouldings in plaster	per 1 girth	0	3
One-and-a-half granolithic pavings	per yard sup.	6	4

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	1	1
26 oz. Do.	" "	1	4
Obscured sheet	" "	1	8
¼ in. rolled plate	" "	1	0
¼ in. rough rolled or cast plate	" "	1	1
¼ in. wired cast plate	" "	1	7

PAINTER.

		s.	d.
Preparing, 2 coats	per yard sup.	1	0
Knotting and priming	" "	0	8
Plain painting 1 coat	" "	0	11
Do. 2 coats	" "	1	7
Do. 3 coats	" "	2	4
Do. 4 coats	" "	3	0
Graining	" "	2	5
Varnishing twice	" "	1	11
Sizing	" "	0	4
Flatting	" "	0	8
Enamel	" "	1	3
Wax polishing	per foot sup.	0	9
French polishing	" "	1	3
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS.

Messrs. Wood, Russell & Co., 34, Oxford-street, London, W.1, have forwarded to us pamphlets describing their "Sentry" boilers.

Whiston R.D.C. recently placed an order with Messrs. William Shepherd & Sons, Ltd., Milkstone, Rochdale, for Asphaltic Slag for Roads.

Messrs. Winget, Ltd., Westminster, S.W.1, have sent us copies of lists relating to several new mixing machines, &c., which they have just placed on the market.

Messrs. Alfred Goslett & Co., Ltd., 127–131, Charing Cross-road, London, W.C.2, have sent us a booklet dealing with the resources of their showrooms in the matter of cooking, heating and sanitary appliances.

Boyle's latest patent "Air-Pump" ventilators have been applied to the Royal Hospital, Portsmouth. These were supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn-viaduct, London.

The Christmas Number of *Current Opinion* to hand, contains the annual report of the Industrial League and Council, which is printed as a supplement.

A new roadway is to be constructed at Waterden-road, Hackney Wick, to consist of a reinforced concrete foundation 8 in. thick, with 2 in. granited, mastic asphalte surface. The reinforcement specified is the Walker-Weston interlocked double-layer framework.

Messrs. Nicoll, Dawson & Humphries, Ltd., scaffolding contractors, Bartholomew-square, Old-street, London, E.C.1, erected the scaffold for the contractors (Messrs. Adamson & Son, Putney) at Messrs. Hope Bros. shop in the Strand. The type of scaffold in use is the firm's patent standard steel scaffold. Messrs. Nicoll, Dawson & Humphries particularly specialise in interior work, and have recently carried out work in Buckingham Palace, the War Office, Corn Exchange, and several church interiors.

An amalgamation has been arranged whereby the "Poilite" factory and asbestos-cement business of Bell's United Asbestos Co., Ltd., and the "Everite" factory and asbestos-cement business of the British Everite & Asbestilite Works, Ltd., will be carried on at the present addresses of the two companies in Southwark-street, London, and 29, Peter-street, Manchester, under the same management as before, but under the name of Bell's Poilite & Everite Co., Ltd., which has been registered with a capital of £500,000.

A catalogue which should be in the possession of everyone who has to purchase tools in connection with his business has been issued by Messrs. Richard Melhuish, Ltd., tool, machine and hardware merchants, of Fetter-lane, E.C. This catalogue (which is issued in two parts: (1) woodworkers, and (2) metalworkers) has been brought right up to date as regards prices, and every article listed is illustrated. It is impossible in a short space to attempt to give a list of the thousand-and-one machines and tools catalogued. Messrs. Melhuish's claim that it is "the most comprehensive catalogue of its kind" is based on the fact that the woodworkers' section comprises 340 pages and the metalworkers' section 560 pages, on each of which several items are illustrated, described and priced. The price of the catalogue is 1s. 3d. and 1s. 6d. (post free) respectively for the woodworkers' and metalworkers' sections.

The National Federated Electrical Association.

The Association has sent a letter to members with regard to putting into effect the second 5 per cent. reduction on the April, 1921, rates, and stating that the reduction must take effect on the first pay-day following Sunday, January 7, 1923, for the period covered by that pay-day, when the rates will be as under:—Grade A, 1s. 9½d. (this rate includes a travelling allowance. No further allowances to be paid except as provided by Rule 9 of the London Rules dated February, 1920); grade B, 1s. 6½d.; grade C, 1s. 3d.; and grade D, 1s. 3½d.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him *not later than Tuesday evening.*

* **Denotes *accepted.*** † **Denotes *provisionally accepted.***

‡ **Denotes *recommended for acceptance.***

ABERDEEN.—For outfall sewer (a) Sinclair-row and Greythorpe-road; (b) St. Flintick's-road to Bay of Nigg, for the T.C. Mr. John Gordon, Burgh Surveyor, Town House, Aberdeen:—

North of Scotland Transport Co., Ltd., Montrose		£33,862
Do.	Do.	28,190
Do.	Do.	26,825
Do.	Do.	23,674
Do.	Do.	23,341
Do.	Do.	19,566
*Do.	Do.	19,062

BIRKENHEAD.—For erection of sub-station, at the Ford, Upton, for the T.C.:—

*F. Thomas & Son, Oxton £856

BIRKENHEAD.—For erection of block of eight tenement dwellings in Lansdown-road, for the T.C.:—

*Birkenhead House Construction Co. .. £3,200

BOLTON-UPON-DEARNE.—For repairing recreation ground, bowling greens, tennis courts, &c., at Goldthorpe, for the Miners' Welfare Scheme. Messrs. Garside & Pennington, architects, Ropergate, Pontefract:—

Tree planting—

*J. W. Skinner, Wakefield £1,268

Road Work—

*Firth & Whittington, Doncaster..... 717

BROMLEY.—For temporary extension of the County School for boys, Hayes lane, for the B.C. The Borough Engineer, Municipal Offices, Bromley:—

London Building Co., Westminster	£7,832 8 2
A. A. Secrett, Ltd., Wallington	7,737 15 6
E. A. Vickers & Son, Bromley	6,755 2 9
Hill & Gurr, Bromley	5,962 0 0
Treasure Bros., Bickley	5,955 0 0
A. Knowles, Farningham	5,876 15 0
Merton Abbey Joinery Works, Merton Abbey	5,839 2 0
Perry Bros., City	5,677 0 0
J. C. Rackham, Harrow Weald, Middlesex	5,645 7 0
W. Harbrow, Bermondsey	5,609 0 0
Humphrey's, Ltd., Knightsbridge	5,600 0 0
J. L. Woodhams & Son, Bromley	5,586 0 0
J. Harrison & Co., Camberwell	5,514 12 0
P. C. Jordan, Beckenham	5,464 0 0
J. W. Ellingham, Dartford	5,389 0 0
H. Kent, Hither Green	5,268 0 0
G. Slade & Co., Barnsbury Park	5,258 0 0
F. P. Duthoit, Bromley	5,160 0 0
W. J. Cearns, Stratford	5,067 14 0
Keen Bros., Beckenham	5,024 19 6
J. Elliman, Beckenham	4,919 0 0
*The Ashford Builders Co., Holloway	4,747 0 0

DONCASTER.—For erection of 20 houses in Lime Tree-avenue, for the T.C. Mr. R. B. Ford, Housing Surveyor, 3, Priory-place, Doncaster:—

S. Higton & Sons, Sheffield	£9,440
W. & A. Forsdike, Ltd., Sheffield	8,646
C. Sprakes & Sons, Doncaster	8,105
*J. H. Elsom, Doncaster	7,816

EAST DEAN, EASTBOURNE.—For the conversion of an existing old building into a domestic residence. Mr. George A. Hill, M.S.A., A.M.I.S.E., architect, Eastbourne and Hailsham:—

G. Bainbridge & Son, Eastbourne	£550
J. W. Woolnough, Eastbourne	540
A. J. Bessant, Eastbourne	525
Wakefield & Avard, Eastbourne	500
*Burton & Son, Eastbourne	498

GRANTHAM.—Erection of bridge over the Witham, at Little Porton, for the R.D.C.:—

*H. Ashby, Mansfield £1,200

HAYWARDS HEATH.—For erection of a generating station for the Hayward's Heath and District Electric Supply Co. Mr. A. R. Pannett, architect, Clifton-terrace, Haywards Heath:—

H. Finch, Haywards Heath	£5,061
Norman & Burt, Burgess Hill	5,049
S. Knight & Co., Cuckfield	4,748
*T. White, Haywards Heath	4,649

LIVERPOOL.—For construction of roads and sewers on Walton-Clubmoor Estate, for the T.C.:—

*Unit Construction Co. £17,647

LIVERPOOL.—For cleaning, painting, &c., at 102, Bedford-street South, for the T.C.:—

*W. Mooney & Sons £169

LIVERPOOL.—Provision of range of cabinets in Museum Dept., for the T.C.:—

*Waring & Gillow £704 17

LIVERPOOL.—Erection of infants' section of Whitehedge-road Council School, for the T.C.:—

*Rimmer Bros. £8,802

LIVERPOOL.—For setting of boiler at Lodge-lan Baths, for the T.C.:—

*Reading Boiler Setting Co., Reading £149 10

LIVERPOOL.—For erection of conveniences at Garston New Market, for the T.C.:—

*P. H. Green, Liverpool £312

LONDON.—For supply of 400 tons of Portland cement to the L.C.C.:—

Young & Son	£2 18s. 11d. for British Portland cement.
J. & R. Howie	£2 16s. 6d. for Belgian cement.
†A. C. Import Agency, c.o. British Mutual Bank, Ludgate-circus	£2 13s. 6d. per ton for Belgian artificial Portland cement.

LONDON.—For the rebuilding of the "Royal Oak," Columbia-road, E., for Messrs. Truman, Hanbury, Buxton & Co., Ltd. Mr. A. E. Sewell, M.S.A., architect, 91, Brick-lane, E.; quantities by Mr. William Gilbert, M.S.A., 74, Broad Street-avenue, E.C.:—

T. G. Waterman	£9,970
Johnson Bros.	9,873
Dearing & Co.	9,860
Snewin Bros.	9,032
Harper, Ltd.	9,027
Shurmur & Sons	8,842
Everitt & Son	8,697
Lawrence & Son	8533,
Schooley & Son	8,413
H. V. Clogg	8,317

LONDON.—Erection of house, Western-avenue, for the Hammersmith B.C.:—

*W. C. Morgan, Olney £1,540

LONDON.—For formation of asphalte carriage-way in Albany-street, for St. Pancras B.C.:—

*Val de Travers Asphalt Paving Co., 13s. 6d. per sup. yd. and free maintenance for two years.

LONDON.—For reconstruction of sewer in Upper Brook-street, for the Westminster C.C.:—

Alexander Thomson & Co.	£4,737 14 5
H. Farrow	4,659 13 3
D. R. Paterson, Ltd.	4,296 1 4
*John Mowlem & Co., Ltd.	3,359 18 11

LONDON.—Repairs at 51, Lea Bridge-road, Clapton, for the Metropolitan Water Board:—

Webb & Sons	£173
Lidstone & Son	143
Collins & Co.	120
*Chessum & Young	111

LONDON.—Extension of Deptford Pumping Station, for the Metropolitan Water Board:—

	Amount of Tender as submitted.	Amount of Tender after checking.
E. A. B. Willmer	£8,000 0 0..	——
William F. Blay, Ltd.	7,259 0 0..	——
Walker & Slater, Ltd.	6,764 15 3..	——
Thomas Warrington	6,498 11 8..	——
Consolidated Construction Co., Ltd.	6,447 13 7..	——
D. G. Somerville & Co., Ltd.	6,329 3 4..	——
Sabey & Son	6,259 0 0..	——
Trollope & Colls, Ltd.	6,085 17 8..	——
The Unit Construction Co., Ltd.	6,024 5 7..	——
J. & C. Bowyer, Ltd.	5,784 0 0..	——
Griggs & Son	5,760 0 0..	——
Thomas & Cockin, Ltd.	5,729 14 9..	——
Thomas D. Long	5,639 0 0..	——
The National Building Guild, Ltd.	5,592 0 0..	——
T. W. Heath, Ltd.	5,501 0 0..	£5,398 14 6
C. Miskin & Sons, Ltd.	5,377 0 0..	5,377 0 0
*Wm. Moss & Sons, Ltd.	5,254 0 0..	*5,253 15 9

LONDON.—Extension of Lea Bridge Pumping Station, for the Metropolitan Water Board:—

	Amount of Tender as submitted.	Amount of Tender after checking.
E. A. B. Willmer	£9,534 0 0..	——
William F. Blay, Ltd.	8,689 0 0..	——
P. & W. Anderson, Ltd.	8,400 0 0..	——
B. Morton & Sons	7,383 9 8..	——
Walker & Slater, Ltd.	7,326 16 8..	——
M. Hipperson	7,140 11 0..	——
S. E. Moss	7,012 9 4..	——
Sabey & Son	6,867 0 0..	——
Griggs & Son	6,736 0 0..	——
D. G. Somerville & Co., Ltd.	6,680 16 8..	——
Consolidated Construction Co., Ltd.	6,502 4 4..	——
Thomas Warrington	6,278 18 10..	——
The Unit Construction Co., Ltd.	6,162 13 2..	——
S. Shaw	6,150 10 0..	——
T. W. Heath, Ltd.	6,090 0 0..	——
Thomas & Cockin, Ltd.	6,034 9 8..	——
The National Building Guild, Ltd.	5,763 0 0..	——
J. & C. Bowyer, Ltd.	5,750 0 0..	——
Wm. Moss & Sons, Ltd.	5,586 0 0..	——
H. Lacey & Sons	5,436 7 8..	——
C. Miskin & Sons, Ltd.	5,368 0 0..	£5,372 5 3
R. Woollaston & Co.	5,146 10 1..	5,162 7 2
*J. E. Johnson & Son, Ltd.	5,129 17 6..	*5,142 3 6

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